152366

State of New Jersey

CHRIS J. CHRISTIE
Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BOB MARTIN
Acting Commissioner

Division of Water Quality
P.O. Box 029 Trenton, NJ 08625-0029
Phone: (609) 292-4860
Fax: (609) 984-7938

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Margaret W. Kelly, Esq
Standard Chlorine Chemical Co Inc
1035 Belleville Tpke
Kearny, NJ 07032

FEBRUARY 8, 2010
7007 0220 0002 1034 5384

Re: Surface Water GPA New
Category: BGR -General Remediation Clean-up (GP)
NJPDES Permit No. NJG0175102
STANDARD CHLORINE CHEMICAL CO
Kearny Town, Hudson County

Dear Ms. Kelly:

Enclosed is an Individual NJPDES/DSW General Permit Authorization under the General Remediation Cleanup (BGR) permit which was issued by the Department on April 21, 2005. This General Permit Authorization is issued in accordance with the New Jersey Pollutant Discharge Elimination System (NJPDES) Regulations N.J.A.C. 7:14A-1 et seq. This permit authorizes the discharge of remediated groundwater to surface waters of the state.

This individual General Permit Authorization allows for the discharge of treated groundwater through the discharge outfalls specified on your permit authorization page. The Violation of any condition of this authorization may subject the permittee to significant penalties.

Outfall DSN001 is for the remediation clean-up which is for greater than 6-months and DSN002A and DSN003A are for the temporary discharge of construction dewatering. The limits and monitoring requirements in Part III of the permit are included in accordance with N.J.A.C. 7:14A-12, Appendix B and are based on the groundwater data submitted with the BGR application. While limits have not been imposed at this time for manganese and magnesium, monitoring requirements have been included due to the presence of these compounds.

The individual General Permit Authorization also sets forth residuals (sludge) monitoring required under the Sludge Quality Assurance Regulations (SQAR, N.J.A.C. 7:14C). Analysis of the industrial sludge for the parameters found on Table III-D-1 and Table III-E-1 of Part III is required because they are parameters required to be analyzed for the discharge to surface water. The frequency of monitoring is dependent on the amount of sludge produced. Since the amount of sludge generated is less than 290 dry metric tons per year the frequency of monitoring is annually.

The enclosed Authorization to discharge groundwater under the General Permit shall expire on May 31, 2010. Applications for renewal of this Authorization must be submitted to the Department at least 180 days prior to expiration of the Individual Authorization pursuant to N.J.A.C. 7:14A-4.2(e)3. Because your application was submitted at a time so close to the renewal of the master permit, your recent application will serve as a renewal application. As a result, the Department will automatically renew this authorization as part of the master renewal process unless you direct us otherwise.

If you have questions or comments regarding the final action, please contact Brian Salvo at (609) 292-4860.

Sincerely,

Melisse Carasia-Auriti, Supervising Environmental Specialist
Bureau of Surface Water Permitting

Enclosures
c: Permit Distribution List
Masterfile #: 37720; PI #: 46937

Table of Contents

This final general permit authorization contains the items listed below:

New Jersey Department of Environmental Protection

Bureau of Surface Water Permitting
Division of Water Quality
PO Box 029
Trenton, NJ 08625-0029
(609) 292-4860

AUTHORIZATION TO DISCHARGE
BGR -General Remediation Clean-up (GP)

Facility Name: Standard Chlorine Chemical Company

Facility Address:
1035 Belleville Turnpike
Kearny, NJ 07032-0000

NJPDES #: NJG0175102

Type of Activity: Surface Water GPA New

Owner:
Standard Chlorine Chemical Co. Inc.
1035 Belleville Turnpike
Kearny, NJ 07032

Operating Entity:
Standard Chlorine Chemical Co. Inc.
1035 Belleville Turnpike
Kearny, NJ 07032

Authorizations Covered Under This Approval	Issuance Date	Effective Date	Expiration Date
Category BGR- New (DSN001A, long term)	01/12/2009	02/01/2010	5/31/2010
Category BGR- New (DSN002A, short term)	01/12/2009	02/01/2010	5/31/2010
Category BGR- New (DSN003A, short term)	01/12/2009	02/01/2010	5/31/2010

Outfall Number	Latitude	Longitude	Receiving Stream	Classification
DSN001A	40° 44' 58.75"	74° 05' 43.40"	Hackensack River	SE2
DSN002A	40° 44' 58.84"	74° 05' 43.46"	Hackensack River	SE2
DSN003A	40° 45' 03.59 "	74° 05' 47.12"	Hackensack River	SE2

Your Request for Authorization under NJPDES General Permit No. NJ00155438 has been approved by the New Jersey Department of Environmental Protection.

Melisse Carasia-Auriti **Date:**

Melisse Carasia-Auriti, Supervising Environmental Specialist
Bureau of Surface Water Permitting
Division of Water Quality
New Jersey Department of Environmental Protection

NEW JERSEY POLLUTANT DISCHARGE ELIMINATION SYSTEM

The New Jersey Department of Environmental Protection hereby grants you a NJPDES permit for the facility/activity named in this document. This permit is the regulatory mechanism used by the Department to help ensure your discharge will not harm the environment. By complying with the terms and conditions specified, you are assuming an important role in protecting New Jersey's valuable water resources. Your acceptance of this permit is an agreement to conform with all of its provisions when constructing, installing, modifying, or operating any facility for the collection, treatment, or discharge of pollutants to waters of the state. If you have any questions about this document, please feel free to contact the Department representative listed in the permit cover letter. Your cooperation in helping us protect and safeguard our state's environment is appreciated.

Permit Number: NJ0155438

Final: Surface Water Master General Permit

Permittee:
NJPDES Master General Permit Program Interest
Category BGR
Per Individual Notice of Authorization
Division of Water Quality
P.O. Box 029, 401 East State Street
Trenton, NJ 08625

Co-Permittee:

Property Owner:
NJPDES Master General Permit Program Interest
Category BGR
Per Individual Notice of Authorization
Division of Water Quality
P.O. Box 029, 401 East State Street
Trenton, NJ 08625

Location Of Activity:
NJPDES Master General Permit Program Interest
Category BGR
Per Individual Notice of Authorization
Division of Water Quality
P.O. Box 029, 401 East State Street
Trenton, NJ 08625

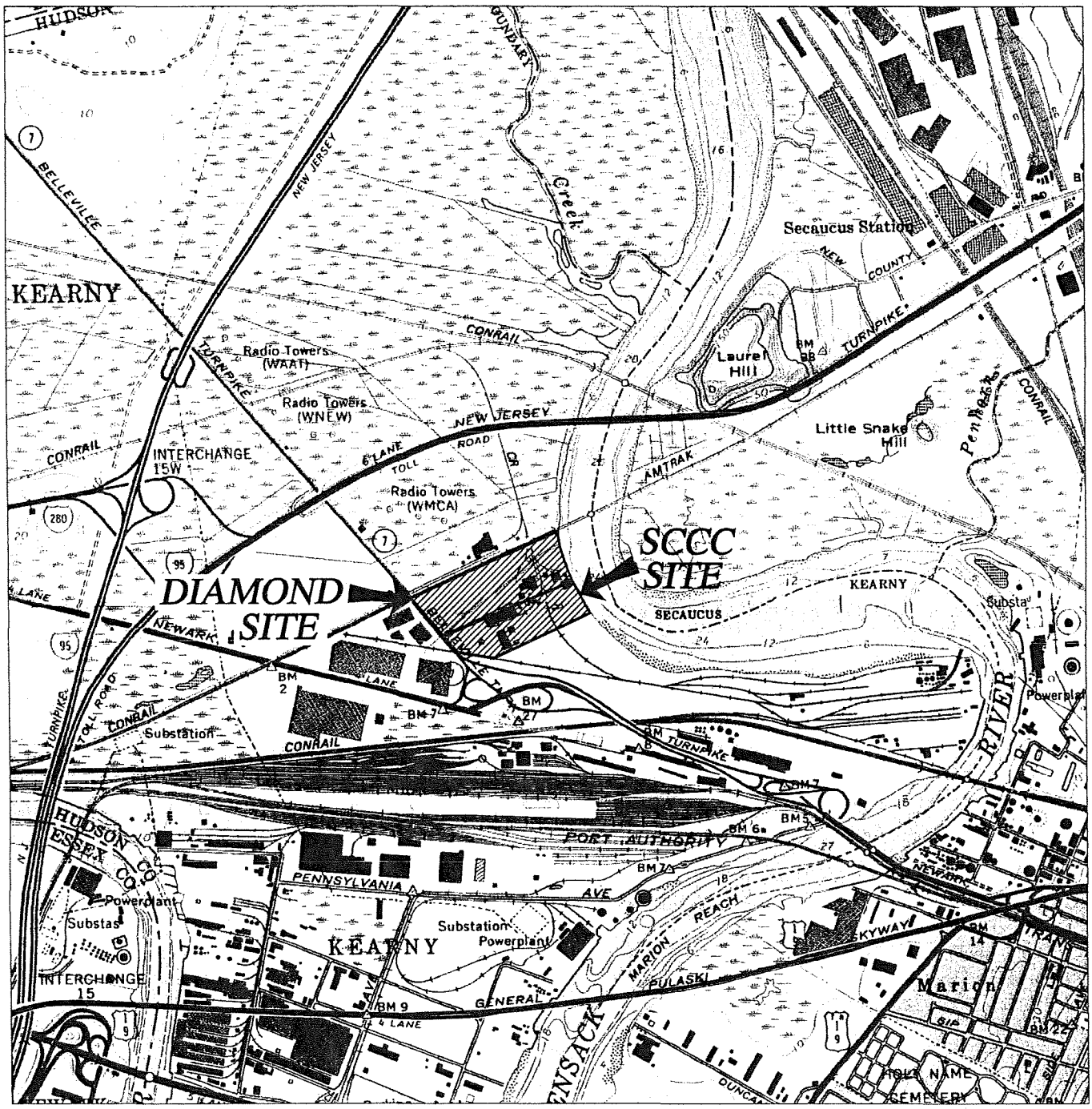
Authorization(s) Covered Under This Approval	Issuance Date	Effective Date	Expiration Date
BGR -General Permit GW Remediation Cleanup	4/20/2005	6/1/2005	5/31/2010
BGR –Typographical Error Correction	5/25/2005	6/1/2005	5/31/2010

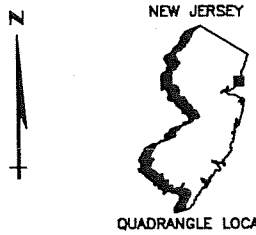
By Authority of:
Commissioner's Office

DEP AUTHORIZATION
Pilar Patterson, Chief
Bureau of Point Source Permitting – Region 2
Division of Water Quality

DEP AUTHORIZATION
Howard Tompkins, Chief
Bureau of Point Source Permitting – Region 1
Division of Water Quality

(Terms, conditions and provisions attached hereto)





REFERENCE: USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLES OF JERSEY CITY, AND WEEHAWKEN, NEW JERSEY

ISSUE DATE:

KEY ENVIRONMENTAL, INC.
200 THIRD AVENUE
CARNEGIE, PA 15106

SCCC, INC. AND TIERRA SOLUTIONS INC.

DRWN: GLC	DATE: 08/24/09
CHKD: RJH	DATE: 08/24/09
APPD: JSZ	DATE: 08/24/09
SCALE:	1"= 2000'

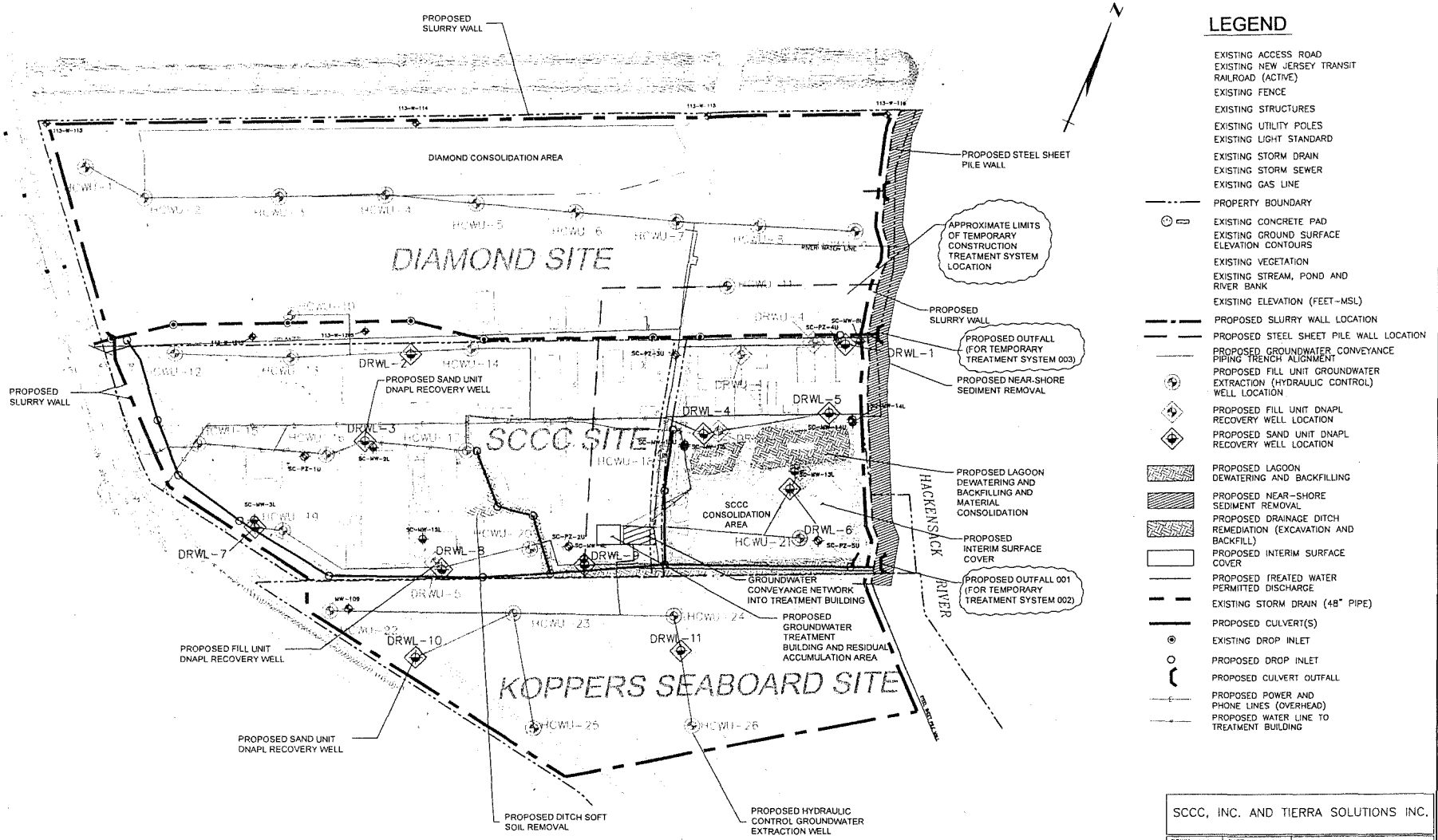
KEY ENVIRONMENTAL INCORPORATED

DISCHARGE TO SURFACE WATER PERMIT APPLICATION
CATEGORY BGR – GENERAL REMEDIATION
DISCHARGE PERMIT AUTHORIZATION
SCCC INC. AND DIAMOND SITES
KEARNY, NEW JERSEY

USGS MAP

PROJECT NO: 09-803/804
FIGURE 4

y:\00civil\kearny\ira design\production drawings\discharge to surface water permit application\figure 4 - usgs map.dwg Last Saved By: Scarner 9/30/2009 5:44 PM Plotted By: Shelly Corner 9/30/2009 5:46 PM Scale: 1:1



REFERENCE: EXISTING GROUND SURFACE CONTOURS PER AIR SURVEY, DULLES, VIRGINIA, APRIL 14, 2001. HORIZONTAL REFERENCE: NEW JERSEY STATE PLANE COORDINATES (NAD 1927). VERTICAL REFERENCE: NATIONAL GEODETIC VERTICAL DATUM (NGVD 1929).

REV #	DATE	DESCRIPTION	APPD
1			
2			
3			

ISSUE DATE:

KEY ENVIRONMENTAL, INC.
200 THIRD AVENUE
CARNEGIE, PA 15106

SCCC, INC. AND TIERRA SOLUTIONS INC.

DRWN: SCC	DATE: 08/24/09	KEY ENVIRONMENTAL INCORPORATED
CHKD: JAB	DATE: 08/24/09	
APPD: PWS	DATE: 08/24/09	
SCALE:	1" = 2000'	

DISCHARGE TO SURFACE WATER PERMIT APPLICATION
CATEGORY BGR - GENERAL REMEDIATION
DISCHARGE PERMIT AUTHORIZATION
SCCC INC. AND DIAMOND SITES
KEARNY, NEW JERSEY

FACILITY DIAGRAM

PROJECT NO: 09-603/804

FIGURE 1

PART I
GENERAL REQUIREMENTS:
NJPDES

A. General Requirements of all NJPDES Permits

1. Requirements Incorporated by Reference

a. The permittee shall comply with all conditions set forth in this permit and with all the applicable requirements incorporated into this permit by reference. The permittee is required to comply with the regulations, including those cited in paragraphs b. through e. following, which are in effect as of the effective date of the final permit.

b. General Conditions

Penalties for Violations	N.J.A.C. 7:14-8.1 et seq.
Incorporation by Reference	N.J.A.C. 7:14A-2.3
Toxic Pollutants	N.J.A.C. 7:14A-6.2(a)4i
Duty to Comply	N.J.A.C. 7:14A-6.2(a)1 & 4
Duty to Mitigate	N.J.A.C. 7:14A-6.2(a)5 & 11
Inspection and Entry	N.J.A.C. 7:14A-2.11(e)
Enforcement Action	N.J.A.C. 7:14A-2.9
Duty to Reapply	N.J.A.C. 7:14A-4.2(e)3
Signatory Requirements for Applications and Reports	N.J.A.C. 7:14A-4.9
Effect of Permit/Other Laws	N.J.A.C. 7:14A-6.2(a)6 & 7 & 2.9(c)
Severability	N.J.A.C. 7:14A-2.2
Administrative Continuation of Permits	N.J.A.C. 7:14A-2.8
Permit Actions	N.J.A.C. 7:14A-2.7(c)
Reopener Clause	N.J.A.C. 7:14A-6.2(a)10
Permit Duration and Renewal	N.J.A.C. 7:14A-2.7(a) & (b)
Consolidation of Permit Process	N.J.A.C. 7:14A-15.5
Confidentiality	N.J.A.C. 7:14A-18.2 & 2.11(g)
Fee Schedule	N.J.A.C. 7:14A-3.1
Treatment Works Approval	N.J.A.C. 7:14A-22 & 23

c. Operation And Maintenance

Need to Halt or Reduce not a Defense	N.J.A.C. 7:14A-2.9(b)
Proper Operation and Maintenance	N.J.A.C. 7:14A-6.12

d. Monitoring And Records

Monitoring	N.J.A.C. 7:14A-6.5
Recordkeeping	N.J.A.C. 7:14A-6.6
Signatory Requirements for Monitoring Reports	N.J.A.C. 7:14A-6.9

e. Reporting Requirements

Planned Changes	N.J.A.C. 7:14A-6.7
Reporting of Monitoring Results	N.J.A.C. 7:14A-6.8
Noncompliance Reporting	N.J.A.C. 7:14A-6.10 & 6.8(h)
Hotline/Two Hour & Twenty-four Hour Reporting	N.J.A.C. 7:14A-6.10(c) & (d)
Written Reporting	N.J.A.C. 7:14A-6.10(e) &(f) & 6.8(h)
Duty to Provide Information	N.J.A.C. 7:14A-2.11, 6.2(a)14 & 18.1
Schedules of Compliance	N.J.A.C. 7:14A-6.4
Transfer	N.J.A.C. 7:14A-6.2(a)8 & 16.2

PART II

GENERAL REQUIREMENTS: DISCHARGE CATEGORIES

A. Additional Requirements Incorporated By Reference

1. Requirements for Discharges to Surface Waters

a. In addition to conditions in Part I of this permit, the conditions in this section are applicable to activities at the permitted location and are incorporated by reference. The permittee is required to comply with the regulations which are in effect as of the effective date of the final permit.

i. Surface Water Quality Standards N.J.A.C. 7:9B-1

B. General Conditions

1. Scope

a. The issuance of this permit shall not be considered as a waiver of any applicable federal, state, and local rules, regulations and ordinances.

2. Permit Renewal Requirement

a. Permit conditions remain in effect and enforceable until and unless the permit is modified, renewed or revoked by the Department.

b. Submit a complete permit renewal application: 180 days before the Expiration Date.

3. Notification of Non-Compliance

a. The permittee shall notify the Department of all non-compliance when required in accordance with N.J.A.C. 7:14A-6.10 by contacting the DEP HOTLINE at 1-877-WARNDEP (1-877-927-6337).

b. The permittee shall submit a written report as required by N.J.A.C. 7:14A-6.10 within five days.

4. Notification of Changes

a. The permittee shall give written notification to the Department of any planned physical or operational alterations or additions to the permitted facility when the alteration is expected to result in a significant change in the permittee's discharge and/or residuals use or disposal practices including the cessation of discharge in accordance with N.J.A.C. 7:14A-6.7.

b. Prior to any change in ownership, the current permittee shall comply with the requirements of N.J.A.C. 7:14A-16.2, pertaining to the notification of change in ownership.

5. Access to Information

a. The permittee shall allow an authorized representative of the Department, upon the presentation of credentials, to enter upon a person's premises, for purposes of inspection, and to access / copy any records that must be kept under the conditions of this permit.

6. Operator Certification

a. Pursuant to N.J.A.C. 7:10A-1.1 et seq. every wastewater system not exempt pursuant to N.J.A.C. 7:10A-1.1(b) requires a licensed operator. The operator of a system shall meet the Department's requirements pursuant to N.J.A.C. 7:10A-1.1 and any amendments. The name of the proposed operator, where required shall be submitted to the Department at the address below, in order that his/her qualifications may be determined prior to initiating operation of the treatment works.

i. Notifcations shall be submitted to:
NJDEP
Examination and Licensing Unit
P.O. Box 417
Trenton, New Jersey 08625
(609)777-1012

b. The permittee shall notify the Department of any changes in licensed operator within two weeks of the change.

7. Operation Restrictions

a. The operation of a waste treatment or disposal facility shall at no time create: (a) a discharge, except as authorized by the Department in the manner and location specified in Part III of this permit; (b) any discharge to the waters of the state or any standing or ponded condtion for water or waste, except as specifically authorized by a valid NJPDES permit.

8. Residuals Management

a. The permittee shall comply with land-based sludge management criteria and shall conform with the requirements for the management of residuals and grit and screenings under N.J.A.C. 7:14A-6.15(a), which includes:

i. Standards for the Use or Disposal of Residual, N.J.A.C. 7:14A-20;

ii. Section 405 of the Federal Act governing the disposal of sludge from treatment works treating domestic sewage;

iii. The Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., and the Solid Waste Management Rules, N.J.A.C. 7:26;

iv. The Sludge Quality Assurance Regulations, N.J.A.C. 7:14C;

v. The Statewide Sludge Management Plan promulgated pursuant to the Water Quality Planning Act, N.J.S.A. 58:11A-1 et seq., and the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq.; and

vi. The provisions concerning disposal of sewage sludge and septage in sanitary landfills set forth at N.J.S.A. 13:1E-42 and the Statewide Sludge Management Plan.

vii. Residual that is disposed in a municipal solid waste landfill unit shall meet the requirements in 40 CFR Part 258 and/or N.J.A.C. 7:26 concerning the quality of residual disposed in a municipal solid waste landfill unit. (That is, passes the Toxicity Characteristic Leaching Procedure and does not contain "free liquids" as defined at N.J.A.C. 7:14A-1.2.)

b. If any applicable standard for residual use or disposal is promulgated under section 405(d)of the Federal Act and Sections 4 and 6 of the State Act and that standard is more stringent than any limitation on the pollutant or practice in the permit, the Department may modify or revoke and reissue the permit to conform to the standard for residual use or disposal.

c. The permittee shall make provisions for storage, or some other approved alternative management strategy, for anticipated downtimes at a primary residual management alternative. The permittee shall not be permitted to store residual beyond the capacity of the structural treatment and storage components of the treatment works. N.J.A.C. 7:14A-20.8(a) and N.J.A.C. 7:26 provide for the temporary storage of residuals for periods not exceeding six months, provided such storage does not cause pollutants to enter surface or ground waters of the State. The storage of residual for more than six months is not authorized under this permit. However, this prohibition does not apply to residual that remains on the land for longer than six months when the person who prepares the residual demonstrates that the land on which the residual remains is not a surface disposal site or landfill. The demonstration shall explain why residual must remain on the land for longer than six months prior to final use or disposal, discuss the approximate time period during which the residual shall be used or disposed and provide documentation of ultimate residual management arrangements. Said demonstration shall be in writing, be kept on file by the person who prepares residual, and submitted to the Department upon request.

d. The permittee shall comply with the appropriate adopted District Solid Waste or Sludge Management Plan (which by definition in N.J.A.C. 7:14A-1.2 includes Generator Sludge Management Plans), unless otherwise specifically exempted by the Department.

e. The preparer must notify and provide information necessary to comply with the N.J.A.C. 7:14A-20 land application requirements to the person who applies bulk residual to the land. This shall include, but not be limited to, the applicable recordkeeping requirements and certification statements of 40 CFR 503.17 as referenced at N.J.A.C 7:14A-20.7(j).

f. The preparer who provides biosolids to another person who further prepares the biosolids for application to the land must provide this person with notification and information necessary to comply with the N.J.A.C. 7:14A-20 land application requirements.

g. Any person who prepares bulk residual in New Jersey that is applied to land in a State other than New Jersey shall comply with the requirement at N.J.A.C. 7:14A-20.7(b)1.ix and/or 20.7(b)1.x, as applicable, to provide written notice to the Department and to the permitting authority for the State in which the bulk residual is proposed to be applied.

PART III
LIMITS AND MONITORING REQUIREMENTS

MONITORED LOCATION:	RECEIVING STREAM:	STREAM CLASSIFICATION:	DISCHARGE CATEGORY(IES):
001A Treated Groundwater	Hackensack River	SE2(C2)	BGR - General Remediation Clean-up (GP)

Location Description

Effluent sampling shall be performed after all treatment steps but prior to discharge.

Contributing Waste Types

Groundwater Remediation

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Comments:

Outfall DSN001A is for the long term cleanup project. DSN002A and DSN003A are for the temporary construction treatment system. A Chronic WET limit of 61% shall become effective on EDP+3 years and will be set forth in a renewal authorization.

Table III - A - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Flow, In Conduit or Thru Treatment Plant	Effluent Gross Value	REPORT Monthly Average	REPORT Daily Maximum	GPD	*****	*****	*****	*****	1/Month	Metered
January thru December	QL	***	***		***	***	***			
pH	Effluent Gross Value	*****	*****	*****	6.0 Monthly Minimum	*****	9.0 Monthly Maximum	SU	1/Month	Grab
January thru December	QL	***	***		***	***	***			
Solids, Total Suspended	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	40 Daily Maximum	MG/L	1/Month	Grab
January thru December	QL	***	***		***	***	***			
% Effect Statre 7day Chr Ceriodaphnia	Effluent Gross Value	*****	*****	*****	REPORT Report Per Minimum	*****	*****	%EFFL	1/Quarter	Composite
January thru December	QL	***	***		***	***	***			
Carbon, Tot Organic (TOC)	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	20 Daily Maximum	MG/L	1/Month	Grab
January thru December	QL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Comments:

Outfall DSN001A is for the long term cleanup project. DSN002A and DSN003A are for the temporary construction treatment system. A Chronic WET limit of 61% shall become effective on EDP+3 years and will be set forth in a renewal authorization.

Table III - A - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Magnesium, Total (as Mg)	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	REPORT Daily Maximum	UG/L	1/Month	Grab
January thru December	QL	***	***		***	***	***			
Manganese, Total Recoverable	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	REPORT Daily Maximum	UG/L	1/Month	Grab
January thru December	QL	***	***		***	***	***			
Nickel, Total Recoverable	Effluent Gross Value	*****	*****	*****	*****	50 Monthly Average	100 Daily Maximum	UG/L	1/Month	Grab
January thru December	QL	***	***		***	***	***			
Zinc, Total Recoverable	Effluent Gross Value	*****	*****	*****	*****	100 Monthly Average	200 Daily Maximum	UG/L	1/Month	Grab
January thru December	QL	***	***		***	***	***			
Lead, Total Recoverable	Effluent Gross Value	*****	*****	*****	*****	50 Monthly Average	100 Daily Maximum	UG/L	1/Month	Grab
January thru December	QL	***	***		***	***	***			
Chromium, Total Recoverable	Effluent Gross Value	*****	*****	*****	*****	50 Monthly Average	100 Daily Maximum	UG/L	1/Month	Grab
January thru December	QL	***	***		***	***	***			
Arsenic	Effluent Gross Value	*****	*****	*****	*****	50 Monthly Average	100 Daily Maximum	UG/L	1/Month	Grab
January thru December	QL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Comments:

Outfall DSN001A is for the long term cleanup project. DSN002A and DSN003A are for the temporary construction treatment system. A Chronic WET limit of 61% shall become effective on EDP+3 years and will be set forth in a renewal authorization.

Table III - A - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Mercury, Total (as Hg)	Effluent Gross Value	*****	*****	*****	*****	REPORT Daily Avg Minimum	1 Daily Maximum	UG/L	1/Month	Grab
January thru December	QL	***	***		***	***	***			
Acenaphthene	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	REPORT Daily Maximum	UG/L	1/Month	Grab
January thru December	QL	***	***		***	***	***			
1,2-Dichlorobenzene	Effluent Gross Value	*****	*****	*****	*****	77 Monthly Average	163 Daily Maximum	UG/L	1/Month	Grab
January thru December	QL	***	***		***	***	***			
1,2,4-Trichloro-benzene	Effluent Gross Value	*****	*****	*****	*****	68 Monthly Average	140 Daily Maximum	UG/L	1/Month	Grab
January thru December	QL	***	***		***	***	***			
1,3-Dichlorobenzene	Effluent Gross Value	*****	*****	*****	*****	31 Monthly Average	44 Daily Maximum	UG/L	1/Month	Grab
January thru December	QL	***	***		***	***	***			
1,4-Dichlorobenzene	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	28 Daily Maximum	UG/L	1/Month	Grab
January thru December	QL	***	***		***	***	***			
Toluene	Effluent Gross Value	*****	*****	*****	*****	26 Monthly Average	80 Daily Maximum	UG/L	1/Month	Grab
January thru December	QL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Comments:

Outfall DSN001A is for the long term cleanup project. DSN002A and DSN003A are for the temporary construction treatment system. A Chronic WET limit of 61% shall become effective on EDP+3 years and will be set forth in a renewal authorization.

Table III - A - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Benzene	Effluent Gross Value	*****	*****	*****	*****	37 Monthly Average	136 Daily Maximum	UG/L	1/Month	Grab
January thru December	QL	***	***		***	***	***			
Chlorobenzene	Effluent Gross Value	*****	*****	*****	*****	15 Monthly Average	28 Daily Maximum	UG/L	1/Month	Grab
January thru December	QL	***	***		***	***	***			
Ethylbenzene	Effluent Gross Value	*****	*****	*****	*****	32 Monthly Average	108 Daily Maximum	UG/L	1/Month	Grab
January thru December	QL	***	***		***	***	***			
Methylene Chloride	Effluent Gross Value	*****	*****	*****	*****	40 Monthly Average	89 Daily Maximum	UG/L	1/Month	Grab
January thru December	QL	***	***		***	***	***			
Tetrachloroethylene	Effluent Gross Value	*****	*****	*****	*****	22 Monthly Average	56 Daily Maximum	UG/L	1/Quarter	Grab
January thru December	QL	***	***		***	***	***			
Trichloroethylene	Effluent Gross Value	*****	*****	*****	*****	21 Monthly Average	54 Daily Maximum	UG/L	1/Month	Grab
January thru December	QL	***	***		***	***	***			
2,4-Dimethylphenol	Effluent Gross Value	*****	*****	*****	*****	18 Monthly Average	36 Daily Maximum	UG/L	1/Month	Grab
January thru December	QL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Comments:

Outfall DSN001A is for the long term cleanup project. DSN002A and DSN003A are for the temporary construction treatment system. A Chronic WET limit of 61% shall become effective on EDP+3 years and will be set forth in a renewal authorization.

Table III - A - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Phenol Single Compound	Effluent Gross Value	*****	*****	*****	*****	15 Monthly Average	26 Daily Maximum	UG/L	1/Month	Grab
January thru December	QL	***	***		***	***	***			

MONITORED LOCATION:	RECEIVING STREAM:	STREAM CLASSIFICATION:	DISCHARGE CATEGORY(IES):
002A Treated Groundwater	Hackensack River	SE2(C2)	BGR - General Remediation Clean-up (GP)

Location Description

Effluent sampling shall be performed after all treatment steps but prior to discharge. Influent sampling shall be performed prior to treatment.

Contributing Waste Types

Groundwater Remediation

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Comments:

Outfall DSN001A is for the long term cleanup project. DSN002A and DSN003A are for the temporary construction treatment system.

Table III - B - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Flow, In Conduit or Thru Treatment Plant	Effluent Gross Value	REPORT Monthly Average	REPORT Daily Maximum	GPD	*****	*****	*****	*****	1/4 Days	Metered
January thru December	QL	***	***		***	***	***			
pH	Effluent Gross Value	*****	*****	*****	6.0 Monthly Minimum	*****	9.0 Monthly Maximum	SU	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Solids, Total Suspended	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	40 Daily Maximum	MG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Carbon, Tot Organic (TOC)	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	20 Daily Maximum	MG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Magnesium, Total (as Mg)	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	REPORT Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Comments:

Outfall DSN001A is for the long term cleanup project. DSN002A and DSN003A are for the temporary construction treatment system.

Table III - B - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Iron, Total Recoverable	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	REPORT Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Manganese, Total Recoverable	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	REPORT Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Selenium, Total Recoverable	Effluent Gross Value	*****	*****	*****	*****	50 Monthly Average	100 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Nickel, Total Recoverable	Effluent Gross Value	*****	*****	*****	*****	50 Monthly Average	100 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Zinc, Total Recoverable	Effluent Gross Value	*****	*****	*****	*****	100 Monthly Average	200 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Lead, Total Recoverable	Effluent Gross Value	*****	*****	*****	*****	50 Monthly Average	100 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Chromium, Total Recoverable	Effluent Gross Value	*****	*****	*****	*****	50 Monthly Average	100 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Comments:

Outfall DSN001A is for the long term cleanup project. DSN002A and DSN003A are for the temporary construction treatment system.

Table III - B - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Arsenic	Effluent Gross Value	*****	*****	*****	*****	50 Monthly Average	100 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Mercury, Total (as Hg)	Effluent Gross Value	*****	*****	*****	*****	REPORT Daily Avg Minimum	1 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Acenaphthylene	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	REPORT Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Acenaphthene	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	REPORT Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Butyl benzyl phthalate	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	24 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Fluoranthene	Effluent Gross Value	*****	*****	*****	*****	25 Monthly Average	68 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Phenanthrene	Effluent Gross Value	*****	*****	*****	*****	22 Monthly Average	59 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Comments:

Outfall DSN001A is for the long term cleanup project. DSN002A and DSN003A are for the temporary construction treatment system.

Table III - B - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Pyrene	Effluent Gross Value	*****	*****	*****	*****	25 Monthly Average	67 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
1,2-Dichlorobenzene	Effluent Gross Value	*****	*****	*****	*****	77 Monthly Average	163 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
1,2,4-Trichloro-benzene	Effluent Gross Value	*****	*****	*****	*****	68 Monthly Average	140 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
1,3-Dichlorobenzene	Effluent Gross Value	*****	*****	*****	*****	31 Monthly Average	44 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
1,4-Dichlorobenzene	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	28 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Naphthalene	Effluent Gross Value	*****	*****	*****	*****	22 Monthly Average	59 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Bis(2-ethylhexyl) phthalate	Effluent Gross Value	*****	*****	*****	*****	59 Monthly Average	118 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Comments:

Outfall DSN001A is for the long term cleanup project. DSN002A and DSN003A are for the temporary construction treatment system.

Table III - B - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Toluene	Effluent Gross Value	*****	*****	*****	*****	26 Monthly Average	80 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Benzene	Effluent Gross Value	*****	*****	*****	*****	37 Monthly Average	136 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Chlorobenzene	Effluent Gross Value	*****	*****	*****	*****	15 Monthly Average	28 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
2,4-Dichlorophenol	Effluent Gross Value	*****	*****	*****	*****	39 Monthly Average	112 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
2,4-Dimethylphenol	Effluent Gross Value	*****	*****	*****	*****	18 Monthly Average	36 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Phenol Single Compound	Effluent Gross Value	*****	*****	*****	*****	15 Monthly Average	26 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			

MONITORED LOCATION:	RECEIVING STREAM:	STREAM CLASSIFICATION:	DISCHARGE CATEGORY(IES):
003A Treated Groundwater	Hackensack River	SE2(C2)	BGR - General Remediation Clean-up (GP)

Location Description

Effluent sampling shall be performed after all treatment steps but prior to discharge. Influent sampling shall be performed prior to treatment.

Contributing Waste Types

Groundwater Remediation

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Comments:

Outfall DSN001A is for the long term cleanup project. DSN002A and DSN003A are for the temporary construction treatment system.

Table III - C - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Flow, In Conduit or Thru Treatment Plant	Effluent Gross Value	REPORT Monthly Average	REPORT Daily Maximum	GPD	*****	*****	*****	*****	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
pH	Effluent Gross Value	*****	*****	*****	6.0 Monthly Minimum	*****	9.0 Monthly Maximum	SU	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Solids, Total Suspended	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	40 Daily Maximum	MG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Carbon, Tot Organic (TOC)	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	20 Daily Maximum	MG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Magnesium, Total (as Mg)	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	REPORT Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Comments:

Outfall DSN001A is for the long term cleanup project. DSN002A and DSN003A are for the temporary construction treatment system.

Table III - C - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Iron, Total Recoverable	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	REPORT Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Manganese, Total Recoverable	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	REPORT Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Selenium, Total Recoverable	Effluent Gross Value	*****	*****	*****	*****	50 Monthly Average	100 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Nickel, Total Recoverable	Effluent Gross Value	*****	*****	*****	*****	50 Monthly Average	100 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Zinc, Total Recoverable	Effluent Gross Value	*****	*****	*****	*****	100 Monthly Average	200 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Lead, Total Recoverable	Effluent Gross Value	*****	*****	*****	*****	50 Monthly Average	100 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Chromium, Total Recoverable	Effluent Gross Value	*****	*****	*****	*****	50 Monthly Average	100 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Comments:

Outfall DSN001A is for the long term cleanup project. DSN002A and DSN003A are for the temporary construction treatment system.

Table III - C - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Arsenic	Effluent Gross Value	*****	*****	*****	*****	50 Monthly Average	100 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Mercury, Total (as Hg)	Effluent Gross Value	*****	*****	*****	*****	REPORT Daily Avg Minimum	1 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Acenaphthylene	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	REPORT Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Acenaphthene	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	REPORT Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Butyl benzyl phthalate	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	24 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Fluoranthene	Effluent Gross Value	*****	*****	*****	*****	25 Monthly Average	68 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Phenanthrene	Effluent Gross Value	*****	*****	*****	*****	22 Monthly Average	59 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Comments:

Outfall DSN001A is for the long term cleanup project. DSN002A and DSN003A are for the temporary construction treatment system.

Table III - C - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Pyrene	Effluent Gross Value	*****	*****	*****	*****	25 Monthly Average	67 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
1,2-Dichlorobenzene	Effluent Gross Value	*****	*****	*****	*****	77 Monthly Average	163 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
1,2,4-Trichloro-benzene	Effluent Gross Value	*****	*****	*****	*****	68 Monthly Average	140 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
1,3-Dichlorobenzene	Effluent Gross Value	*****	*****	*****	*****	31 Monthly Average	44 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
1,4-Dichlorobenzene	Effluent Gross Value	*****	*****	*****	*****	REPORT Monthly Average	28 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Naphthalene	Effluent Gross Value	*****	*****	*****	*****	22 Monthly Average	59 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Bis(2-ethylhexyl) phthalate	Effluent Gross Value	*****	*****	*****	*****	59 Monthly Average	118 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Comments:

Outfall DSN001A is for the long term cleanup project. DSN002A and DSN003A are for the temporary construction treatment system.

Table III - C - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Toluene	Effluent Gross Value	*****	*****	*****	*****	26 Monthly Average	80 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Benzene	Effluent Gross Value	*****	*****	*****	*****	37 Monthly Average	136 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Chlorobenzene	Effluent Gross Value	*****	*****	*****	*****	15 Monthly Average	28 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
2,4-Dichlorophenol	Effluent Gross Value	*****	*****	*****	*****	39 Monthly Average	112 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
2,4-Dimethylphenol	Effluent Gross Value	*****	*****	*****	*****	18 Monthly Average	36 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			
Phenol Single Compound	Effluent Gross Value	*****	*****	*****	*****	15 Monthly Average	26 Daily Maximum	UG/L	1/4 Days	Grab
January thru December	QL	***	***		***	***	***			

MONITORED LOCATION:
SI6A SQAR-HCTS

DISCHARGE CATEGORY(IES):
BGR - General Remediation Clean-up (GP)

Location Description

Annually, a representative sample of sludge generated from the Hydraulic Control Treatment System shall be taken and analyzed pursuant to the Sludge Quality Assurance Regulations (SQAR, N.J.A.C. 7:14C) each year sludge is removed from the filter press for ultimate management.

Contributing Waste Types

Ind Residual-Other

Residuals DMR Reporting Requirements:

Submit an Annual DMR: due 60 calendar days after the end of each calendar year.

Table III - D - 1: Residuals DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Solids, Total	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	%TS	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Magnesium Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Manganese, Total (as Mn)	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Arsenic, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			

Residuals DMR Reporting Requirements:

Submit an Annual DMR: due 60 calendar days after the end of each calendar year.

Table III - D - 1: Residuals DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Zinc, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Lead, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Nickel, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Mercury, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Chromium, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Acenaphthene, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Benzene, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			

Residuals DMR Reporting Requirements:

Submit an Annual DMR: due 60 calendar days after the end of each calendar year.

Table III - D - 1: Residuals DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
1,2-Dichlorobenzene, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
1,2,4-Trichloro-benzene, Dry Wt	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
1,3-Dichlorobenzene, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
1,4-Dichlorobenzene, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Chlorobenzene, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Ethylbenzene Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Methylene Chloride, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			

Residuals DMR Reporting Requirements:

Submit an Annual DMR: due 60 calendar days after the end of each calendar year.

Table III - D - 1: Residuals DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Tetrachloroethylene, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Toluene, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Trichloroethylene, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Phenol, Single Compound, Dry Wt	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
2,4-Dimethylphenol, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			

Residuals WCR - Annual Reporting Requirements:

Submit an Annual WCR: due 60 calendar days after the end of each calendar year.

Table III - D - 3: Residuals WCR - Annual Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Amt Sludge Rmvd, Wet Cubic Yards	Industrial Residuals	REPORT	WCY/YR	Calculated	January thru December
Amt Sludge Rmvd, Wet Metric Tons	Industrial Residuals	REPORT	WMT/YR	Calculated	January thru December
Amt Sludge Rmvd, Gallons	Industrial Residuals	REPORT	GAL/YEAR	Calculated	January thru December
Total Amount of Sludge Removed	Industrial Residuals	REPORT	DMT/YR	Calculated	January thru December
Solids, Total	Industrial Residuals	REPORT	%TS	Composite	January thru December

Residuals Transfer Reporting Requirements:

Submit an Annual RTR: due 60 calendar days after the end of each calendar year.

MONITORED LOCATION:
SIB6 SQAR-TCTS

DISCHARGE CATEGORY(IES):
BGR - General Remediation Clean-up (GP)

Location Description

Annually, a representative sample of sludge generated from the Temporary Construction Treatment System shall be taken and analyzed pursuant to the Sludge Quality Assurance Regulations (SQAR, N.J.A.C. 7:14C) each year sludge is removed from the filter press for ultimate management.

Contributing Waste Types

Ind Residual-Other

Residuals DMR Reporting Requirements:

Submit an Annual DMR: due 60 calendar days after the end of each calendar year.

Table III - E - 1: Residuals DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Solids, Total	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	%TS	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Magnesium Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Manganese, Total (as Mn)	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Arsenic, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			

Residuals DMR Reporting Requirements:

Submit an Annual DMR: due 60 calendar days after the end of each calendar year.

Table III - E - 1: Residuals DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Selenium, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Zinc, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Lead, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Nickel, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Mercury, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Chromium, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Iron, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			

Residuals DMR Reporting Requirements:

Submit an Annual DMR: due 60 calendar days after the end of each calendar year.

Table III - E - 1: Residuals DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Acenaphthylene, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Acenaphthene, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Benzene, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Butyl benzyl-phthalate, Dry Wt	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Fluoranthene Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Naphthalene Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Phenanthrene Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			

Residuals DMR Reporting Requirements:

Submit an Annual DMR: due 60 calendar days after the end of each calendar year.

Table III - E - 1: Residuals DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Pyrene, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
1,2-Dichlorobenzene, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
1,2,4-Trichloro-benzene, Dry Wt	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
1,3-Dichlorobenzene, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
1,4-Dichlorobenzene, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Bis(2-ethylhexyl) phthalate, Dry Wt	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Chlorobenzene, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			

Residuals DMR Reporting Requirements:

Submit an Annual DMR: due 60 calendar days after the end of each calendar year.

Table III - E - 1: Residuals DMR Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Toluene, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
Phenol, Single Compound, Dry Wt	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
2,4-Dichlorophenol, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			
2,4-Dimethylphenol, Dry Weight	Industrial Residuals	*****	*****	*****	*****	REPORT Monthly Average	*****	MG/KG	1/Year	Composite
January thru December	QL	***	***		***	***	***			

Residuals WCR - Annual Reporting Requirements:

Submit an Annual WCR: due 60 calendar days after the end of each calendar year.

Table III - E - 3: Residuals WCR - Annual Limits and Monitoring Requirements

PHASE: Final **PHASE Start Date:** 02/01/2010 **PHASE End Date:**

Parameter	Sample Point	Compliance Quantity	Units	Sample Type	Monitoring Period
Amt Sludge Rmvd, Wet Cubic Yards	Industrial Residuals	REPORT	WCY/YR	Calculated	January thru December
Amt Sludge Rmvd, Wet Metric Tons	Industrial Residuals	REPORT	WMT/YR	Calculated	January thru December
Amt Sludge Rmvd, Gallons	Industrial Residuals	REPORT	GAL/YEAR	Calculated	January thru December
Total Amount of Sludge Removed	Industrial Residuals	REPORT	DMT/YR	Calculated	January thru December
Solids, Total	Industrial Residuals	REPORT	%TS	Composite	January thru December

Residuals Transfer Reporting Requirements:

Submit an Annual RTR: due 60 calendar days after the end of each calendar year.

PART IV

SPECIFIC REQUIREMENTS: NARRATIVE

General Remediation Clean-up (GP)

A. MONITORING REQUIREMENTS

1. Standard Monitoring Requirements

a. Each analysis required by this permit shall be performed by a New Jersey Certified Laboratory that is certified to perform that analysis.

b. The Permittee shall perform all water/wastewater analyses in accordance with the analytical test procedures specified in 40 CFR 136 unless other test procedures have been approved by the Department in writing or as otherwise specified in the permit.

c. The permittee shall utilize analytical methods that will ensure compliance with the Quantification Levels (QLs) listed in PART III. If the permittee and/or contract laboratory determines that the QLs achieved for any pollutant(s) generally will not be as sensitive as the QLs specified in PART III, the permittee must submit a justification of such to the Bureau of Point Source Permitting. For limited parameters with no QL specified, the sample analysis shall use a detection level at least as sensitive as the effluent limit.

d. All sampling shall be conducted in accordance with the Department's Field Sampling Procedures Manual, or an alternate method approved by the Department in writing.

e. All monitoring shall be conducted as specified in Part III.

f. All sample frequencies expressed in Part III are minimum requirements. Any additional samples taken consistent with the monitoring and reporting requirements contained herein shall be reported on the Monitoring Report Forms.

g. If annual and semi-annual wastewater testing is specified, it shall be conducted in a different quarter of each year so that tests are conducted in each of the four permit quarters of the permit cycle. Testing may be conducted during any month of the permit quarters.

h. The permittee shall perform all residual analyses in accordance with the analytical test procedures specified in 40 CFR 503.8 and the Sludge Quality Assurance Regulations (N.J.A.C. 7:14C) unless other test procedures have been approved by the Department in writing or as otherwise specified in the permit.

i. Flow shall be measured using a meter unless specified otherwise in the individual authorization.

B. RECORDKEEPING

1. Standard Recordkeeping Requirements

a. The permittee shall retain records of all monitoring information, including 1) all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation (if applicable), 2) copies of all reports required by this NJPDES permit, 3) all data used to complete the application for a NJPDES permit, and 4) monitoring information required by the permit related to the permittee's residual use and/or disposal practices, for a period of at least 5 years, or longer as required by N.J.A.C. 7:14A-20, from the date of the sample, measurement, report, application or record.

b. Records of monitoring information shall include 1) the date, locations, and time of sampling or measurements, 2) the individual(s) who performed the sampling or measurements, 3) the date(s) the analyses were performed, 4) the individual(s) who performed the analyses, 5) the analytical techniques or methods used, and 6) the results of such analyses.

C. REPORTING

1. Standard Reporting Requirements

a. The permittee shall submit all required monitoring results to the Department on the forms provided to them. The Monitoring Report Forms (MRFs) may be provided to the permittee in either a paper format or in an electronic file format. Unless otherwise noted, all requirements below pertain to both paper and electronic formats.

b. Any MRFs in paper format shall be submitted to the following addresses:

i. NJDEP
Division of Water Quality
Bureau of Permit Management
P.O. Box 029
Trenton, New Jersey 08625-0029

ii. (if requested by the Water Compliance and Enforcement Bureau)
NJDEP: Northern Bureau of Water Compliance and Enforcement
7 Ridgedale Avenue
Cedar Knolls, New Jersey 07927-1112

iii. (if requested by the Water Compliance and Enforcement Bureau)
NJDEP: Central Bureau of Water Compliance and Enforcement
P.O. Box 407
Trenton, New Jersey 08625-0407

iv. (if requested by the Water Compliance and Enforcement Bureau)
NJDEP: Southern Bureau of Water Compliance and Enforcement
One Port Center
2 Riverside Drive, Suite 201
Camden, New Jersey 08102

c. Any electronic data submission shall be in accordance with the guidelines and provisions outlined in the Department's Electronic Data Interchange (EDI) agreement with the permittee. Paper copies must be available for on-site inspection by DEP personnel or provided to the DEP upon written request.

d. All monitoring report forms shall be certified by the highest ranking official having day-to-day managerial and operational responsibilities for the discharging facility.

e. The highest ranking official may delegate responsibility to certify the monitoring report forms in his or her absence. Authorizations for other individuals to sign shall be made in accordance with N.J.A.C. 7:14A-4.9(b).

f. Monitoring results shall be submitted in accordance with the current Discharge Monitoring Report Manual and any updates thereof.

g. If monitoring for a parameter is not required in a monitoring period, the permittee must report "CODE=N" for that parameter.

h. For intermittent discharges, the permittee shall obtain a sample during at least one of the discharge events occurring during a monitoring period.

i. If there are no discharge events during an entire monitoring period, the permittee must notify the Department when submitting the monitoring results. This is accomplished by placing a check mark in the "No Discharge this monitoring period" box on the paper or electronic version of the monitoring report submittal form.

D. SUBMITTALS

1. Standard Submittal Requirements

a. The permittee shall prepare/update the Operation and Maintenance (O&M) Manual including an emergency plan in accordance with requirements of N.J.A.C. 7:14A-6.12(c).

b. The permittee shall amend the Operation & Maintenance Manual whenever there is a change in the treatment works design, construction, operations or maintenance which substantially changes the treatment works operations and maintenance procedures.

E. FACILITY MANAGEMENT

1. Discharge Requirements

a. The permittee shall discharge at the location(s) specified in PART III of this permit.

b. The permittee shall not discharge foam or cause foaming of the receiving water that: 1) Forms objectionable deposits on the receiving water, 2) Forms floating masses producing a nuisance, or 3) Interferes with a designated use of the waterbody.

c. The permittee's discharge shall not produce objectionable color or odor in the receiving stream.

d. The discharge shall not exhibit a visible sheen.

e. When quantification levels (QL) and effluent limits are both specified for a given parameter in Part III, and the QL is less stringent than the effluent limit, effluent compliance will be determined by comparing the reported value against the QL.

f. The permittee shall attain effluent limits of 10 mg/L as a monthly average and 15 mg/L as a daily maximum for oil & grease. Quarterly, semi-annual or annual monitoring may also be required and shall be specified in Part III.

2. Operation, Maintenance and Emergency conditions

a. The permittee shall operate and maintain treatment works and facilities which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit as specified in the Operation & Maintenance Manual.

b. The permittee shall develop emergency procedures to ensure effective operation of the treatment works under emergency conditions in accordance with NJAC 7:14A-6.12(d).

3. Chronic Toxicity Testing Requirements

a. The permittee shall conduct toxicity tests on its wastewater discharge in accordance with the provisions in this section. Such testing will determine if appropriately selected effluent concentrations adversely affect the test species.

b. Chronic toxicity tests shall be conducted using the test species and method identified in Part III of this permit.

c. Any test that does not meet the specifications contained in the Department's "Chronic Toxicity Testing Specifications for Use in the NJPDES Program" document must be repeated within 30 days of the completion of the initial test. The repeat test shall not replace subsequent testing required in Part III.

d. IC25 - Inhibition Concentration - Concentration of effluent which has an inhibitory effect on 25% of the test organisms for the monitored effect, as compared to the control (expressed as percent effluent).

e. Test results shall be expressed as the IC25 for each test endpoint. Where a chronic toxicity testing endpoint yields IC25's from more than one test endpoint, the most sensitive endpoint will be used to evaluate effluent toxicity.

f. The permittee shall submit a Chronic Methodology Questionnaire within 60 days of commencement of discharge or of any change in laboratory.

g. Submit a chronic whole effluent toxicity test report along with your Discharge Monitoring Reports within twenty-five days after the end of every month during which a chronic whole effluent toxicity test was performed. These toxicity tests shall be performed according to the frequency specified in the individual General Permit Authorization. The permittee shall submit toxicity test results on appropriate forms.

h. Test reports shall be submitted to:
New Jersey Department of Environmental Protection
Division of Water Quality, Bureau of Point Source Permitting Region 1
P.O. Box 029
Trenton, New Jersey 08625

4. Toxicity Reduction Implementation Requirements (TRIR)

a. The permittee shall initiate a tiered toxicity investigation if two out of six consecutive WET tests demonstrate that the effluent does not comply or will not comply with the toxicity limit specified in Part III of this Permit.

   i. If the exceedence of the toxicity limit is directly caused by a documented facility upset, or other unusual event which has been identified and appropriately remedied by the permittee, the toxicity test data collected during the event may be eliminated when determining the need for initiating a TRIR upon written Department approval.

b. The permittee shall begin toxicity characterization within 30 days of the end of the monitoring period when the second toxicity test exceeds the toxicity limits in Part III. The monitoring frequency for toxicity testing shall be increased to semi-monthly (i.e. every two months). Up to 12 additional tests may be required.

i. The permittee may return to the toxicity testing frequency specified in Part III if four consecutive toxicity tests conducted during the Toxicity Characterization do not exceed the toxicity limit.

ii. If two out of any six consecutive, acceptable tests again exceed the toxicity limit in Part III, the permittee shall repeat Toxicity Reduction Implementation Requirements.

c. The permittee shall initiate a preliminary toxicity identification (PTI) upon the fourth exceedence of the toxicity limit specified in Part III during toxicity characterization.

i. The permittee may return to the monitoring frequency specified in PART III while conducting the PTI. If more frequent WET testing is performed during the PTI, the permittee shall submit all biomonitoring reports to the DEP and report the results for the most sensitive species on the DMR.

ii. As appropriate, the PTI shall include:
(1) treatment plant performance evaluation,
(2) evaluation of chemical use and processes at the facility, and
(3) an evaluation of incidental facility procedures and chemical spill disposal which may contribute to effluent toxicity.

iii. The permittee shall submit a Preliminary Toxicity Identification Notification within 15 months of triggering TRIR. This notification shall include a determination that the permittee intends to demonstrate compliance OR plans to initiate a CTI.

d. The permittee must demonstrate compliance with the WET limitation in four consecutive WET tests to satisfy the requirements of the Toxicity Reduction Investigation Requirements. After successful completion, the permittee may return to the WET monitoring frequency specified in PART III.

e. The permittee shall initiate a Comprehensive Toxicity Investigation (CTI) if the PTI does not identify the cause of toxicity and a demonstration of consistent compliance with the toxicity limit in Part III can not be made.

i. The permittee shall develop a project study plan identifying the party or parties responsible for conducting the comprehensive evaluation, establish a schedule for completing the study, and a description of the technical approach to be utilized.

ii. If the permittee determines that the PTI has failed to demonstrate consistent compliance with the toxicity limit in Part III , a Comprehensive Toxicity Investigation Workplan must be prepared and submitted within 90 days.

iii. The permittee shall summarize the data collected and the actions taken in CTI Quarterly Reports. The reports shall be submitted within 30 calendar days after the end of each quarter.

iv. The permittee shall submit a Final CTI Report 90 calendar days after the last quarterly report. The final CTI report shall include the corrective actions identified to reduce toxicity and a schedule for implementing these corrective actions.

f. Upon receipt of written approval from the Department of the corrective action schedule, the permittee shall implement those corrective actions consistent with that schedule.

i. The permittee shall satisfy the requirements of the Toxicity Reduction Implementation Requirements and return to the original toxicity monitoring frequency after corrective actions are implemented and the permittee demonstrates consistent compliance with the toxicity limit in Part III in four consecutive toxicity tests.

ii. If the implemented corrective measures do not result in consistent compliance with the toxicity limit in Part III, the permittee shall submit a plan for resuming the CTI.

F. CONDITIONS FOR MODIFICATION

1. Notification requirements

a. For new discharges, the permittee shall notify the Department that a tag to mark the location of the outfall pipe has been installed consistent with N.J.A.C. 7:14A-6.2(a)9.

2. Causes for modification

a. The Department may modify or revoke and reissue any permit to incorporate 1) any applicable effluent standard or any effluent limitation, including any effluent standards or effluent limitations to control the discharge of toxic pollutants or pollutant parameters such as acute or chronic whole effluent toxicity and chemical specific toxic parameters, 2) toxicity reduction requirements, or 3) the implementation of a TMDL or watershed management plan adopted in accordance with N.J.A.C. 7:15-7.

b. The permittee may request a minor modification to eliminate the monitoring requirements associated with a discharge authorized by this permit when the discharge ceases due to changes at the facility.

c. For new dischargers where a chronic whole effluent toxicity requirement is imposed: The Department may issue a minor modification further deferring the effective date of the chronic whole effluent toxicity limitation if a facility is implementing the Toxicity Reduction Implementation Requirements (TRIR) in Part IV of this permit.

d. The Department may modify individual authorizations under this permit through a minor modification in accordance with N.J.A.C. 7:14A-16.5(a)1 to reduce WET monitoring to either semi-annual or annual. The criteria for such reduction is consistent compliance with the WET limit for a minimum of ten data points.

e. The Department may modify individual authorizations under this permit through a minor modification in accordance with N.J.A.C. 7:14A-16.5(a)1 to reduce toxics and conventionals monitoring to quarterly or an alternate monitoring frequency. The criteria for such reduction is consistent compliance with the applicable limits for at least 12 data points. The Department may eliminate the total petroleum hydrocarbons or oil and grease monitoring requirement if 12 consecutive data points are non-detectable. This change will be incorporated as a minor modification pursuant to N.J.A.C. 7:14A-16.5.

G. OPERATIONAL ISSUES

1. Operational Requirements

a. The treatment works shall operate at the optimal average design flow rate for maximum groundwater clean-up.

b. No backwash from any treatment unit(s) for maintenance purposes or any other reasons shall be discharged through the authorized outfall(s).

c. The permittee shall not attain any effluent limitations by dilution pursuant to N.J.A.C. 7:14A-6.2. Specifically, the permittee shall not pump from a recovery well and divert such waters to the treatment system for the purposes of diluting groundwater from other contaminated recovery wells.

d. Samples taken in compliance with the specified monitoring requirements shall be taken at the discharge outfall(s) specified in Part III of this permit authorization at the nearest accessible point after final treatment but prior to actual discharge.

2. Use of Chemical Addition Agents

a. If a permittee proposes addition of any chemical or biofouling agents in its treatment system in order to enhance treatment effectiveness and system performance, the permittee must obtain permission from the Department in writing prior to use of such compounds.

b. The permittee shall submit a letter to the Department describing the use of such chemical addition agents, including information pertaining to dosage rates and frequency of dosage, and shall also include a material safety data sheet for the product(s).

c. This letter shall be submitted to the appropriate Bureau of Point Source Permitting which issued the individual authorization where the address is included in the cover letter. The Department will then evaluate the submittal and notify the permittee in writing as to whether the compound can be utilized under the conditions of the individual authorization under the permit. Please note that N.J.A.C. 7:14A-22.4(a)7 does not require a treatment works approval (TWA) modification for chemical addition where it is used for purposes of improving treatment system performance.

3. Third Party Storm Sewers

a. If the permittee proposes to discharge or discharges through an off-site public or private storm drainage system, please note that this permit to discharge does not exempt, nor shall be construed to exempt, the permittee from compliance with rules, regulations, policies, and/or laws lodged in any agency or subdivision of the state having legal jurisdiction over the storm sewer system proposed for use as a wastewater conveyance.

4. Permanent Cessation of Discharge to Surface Waters

a. If the permittee permanently discontinues its discharge to surface waters for 30 days or more the appropriate Regional Bureau of Water and Compliance Enforcement shall be notified:

i. NORTHERN BUREAU (Counties of Bergen, Essex, Hudson, Hunterdon, Morris, Passaic, Somerset, Sussex and Warren) - (973) 656-4099.

ii. CENTRAL BUREAU (Counties of Mercer, Middlesex, Monmouth, Ocean and Union) - (609) 584-4200.

iii. SOUTHERN BUREAU (Counties of Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester and Salem) - (609) 968-2640.

5. Revocation of an Individual Authorization under the Permit.

a. If the permittee has permanently ceased its discharge to surface water, the permittee can request revocation of its individual authorization under the permit. The permittee can obtain the necessary revocation forms by accessing www.state.nj.us/dep/dwq or by contacting the Department's Bureau of Permit Management at (609) 984-4428. The permittee can also contact the appropriate Regional Enforcement Office for further guidance on closure proceedings.

b. Upon receipt of an administratively complete revocation request, the Department will verify with the appropriate Regional Enforcement Office that the discharge has ceased and that the treatment works has undergone closure, in conformance with N.J.A.C. 7:14A-23.34. The Department will then revoke such individual authorization by preparing a copy of the individual authorization page showing the revocation date of the individual authorization and sending such to the permittee. However, the Department will not revoke an individual authorization if the Site Remediation Program disagrees that revocation is appropriate.

APPENDIX A:

CHRONIC TOXICITY TESTING SPECIFICATIONS

FOR USE IN THE NJPDES PERMIT PROGRAM

Version 2.1

May 1997

TABLE OF CONTENTS

Notice: Mention of trade names or commercial products do not constitute endorsement or recommendation for use.

I. AUTHORITY AND PURPOSE

These methods specifications for the conduct of whole effluent chronic toxicity testing are established under the authority of the NJPDES permitting program, N.J.A.C. 7:14A-6.5(a)2 and 40 CFR 136, for discharges to waters of the State. The methods referenced herein are included by reference in 40 CFR 136, Table 1.A. and, therefore, constitute approved methods for chronic toxicity testing. The information contained herein serves to clarify testing requirements not sufficiently clarified in those methods documents and also serves to outline and implement the interlaboratory Standard Reference Toxicant Program until a formal laboratory certification program is established under N.J.A.C. 7:18. As such these methods are intended to be used to determine compliance with discharge permits issued under the authority of the NJPDES permit program. Tests are to be conducted in accordance with the general conditions and test organism specific method specifications contained in this document. All other conditions and specifications can be found in 40 CFR 136 and USEPA methodologies.

Until a subchapter on chronic toxicity testing within the regulations governing the certification of laboratories and environmental measurements (N.J.A.C. 7:18) becomes effective, tests shall be conducted in conformance with the methodologies as designated herein and contained in 40 CFR 136. The laboratory performing the testing shall be within the existing acute toxicity testing laboratory certification program established under N.J.A.C. 7:18, as required by N.J.A.C. 7:9B-1.5(c)5.

Testing shall be in conformance with the subchapter on chronic toxicity testing within the N.J.A.C. 7:18 when such regulations become effective. The laboratory performing the toxicity testing shall be within the chronic toxicity testing laboratory certification program to be established under that subchapter, when it becomes effective.

These methods are incorporated into discharge permits as enforceable permit conditions. Each discharge permit will specify in Part IV of the permit, the test species specific methods from this document that will be required under the terms of the discharge permit. Although the test species specific methods for each permit are determined on a case-by-case basis, the purpose of this methods document is to assure consistency among dischargers and to provide certified laboratories with information on the universe of tests to be utilized so that they can make the necessary preparations, including completing the required Standard Reference Toxicant testing. Please note that these methodologies are required for compliance testing only. Facilities and/or laboratories conducting testing under the requirements of a Toxicity Identification Evaluation or for informational purposes are not bound by these methods.

This document constitutes the second version of the NJDEP's interim chronic methodologies. This version contains no significant changes to the test methods themselves. However, in keeping with the Department's continued emphasis on good laboratory practices and quality control, the areas addressing the Standard Reference Toxicant Program, data analysis and data reporting, have been significantly revised.

II. GENERAL CONDITIONS

A. LABORATORY SAFETY, GLASSWARE, ETC.

All safety procedures, glassware cleaning procedures, etc., shall be in conformance with 40 CFR 136 and USEPA's "Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms," "Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms" and N.J.A.C. 7:18.

B. TEST CONCENTRATIONS / REPLICATES

All testing is to be performed with a minimum of five effluent concentrations plus a dilution water control. A second reference water control is optional when a dilution water other than culture water is used. The use of both a 0.5 or 0.75 dilution factor is acceptable for the selection of test concentrations. If hypothesis testing will be used to determine the test endpoint, one effluent concentration shall be the chronic permit limitation, unless the existing data for the discharge indicate that the NOEC is expected to be significantly less than the permit limit. The use of the 0.5 dilution factor may require more than five dilutions to cover the entire range of effluent concentrations as well as the chronic permit limit, since the permit limit will often not be one of the nominal concentrations in a 0.5 dilution series. In such an instance, the 0.5 dilution series may be altered by including an additional test concentration equal to the permit limit in the dilution series, or by changing the concentration closest to the permit toxicity limit to be equal to that limit. The Department recommends the use of the 0.75 dilution factor using Table 1.0 to determine test concentrations. That table establishes test concentrations based on the chronic toxicity limitation.

For either the 0.5 or 0.75 dilution factor, there shall be at least one test concentration above the permit limitation and at least three test concentrations below the permit limit along with the dilution water control unless the permit limitation prohibits such (e.g., limitations greater than 75% effluent). An effort shall be made to bracket the anticipated test result.

To use Table 1.0, locate the permit limit in column 4. The dilution series becomes the row that corresponds to the permit limit in column 4. For example, a permit limit of 41 would require a dilution series of the dilution water control, 17%, 23%, 31%, 41% and 55% effluent.

The number of replicates used in the test must, at a minimum, satisfy the specifications of the applicable methods contained herein. Increased data sensitivity can be obtained by increasing the number of replicates equally among test concentrations and thus an increased number of replicates is acceptable. Further, the use of nonparametric statistical analysis requires a minimum of four replicates per test concentration. If the data for any particular test is not conducive to parametric analyses and if less than four replicates were included, the test may not be considered acceptable for compliance purposes.

The use of single concentration tests consisting of the permit limitation as a concentration and a control is not permitted for compliance purposes, but may be used by a permittee in the conduct of a Toxicity Investigation Evaluation (TIE) or for information gathering purposes. Such a test would be considered a "pass" if there was no significant difference in test results, using hypothesis testing methods.

Table 1.0: 0.75 DILUTION SERIES INDEXED BY PERMIT LIMIT

				Permit Limit						Permit Limit	
Col #	1	2	3	4	5	Col #	1	2	3	4	5
	0.4	0.6	0.8	1	1.3		22	29	38	51	68
	0.8	1.1	1.5	2	2.7		22	29	39	52	69
	1.3	1.7	2.3	3	4		22	30	40	53	71
	1.7	2.3	3	4	5.3		23	30	41	54	72
	2.1	2.8	3.8	5	6.7		23	31	41	55	73
	2.5	3.4	4.5	6	8		24	32	42	56	75
	3	4	5	7	9		24	32	43	57	76
	3	5	6	8	11		24	33	44	58	77
	4	5	7	9	12		25	33	44	59	79
	4	6	8	10	13		25	34	45	60	80
	5	6	8	11	15		26	34	46	61	81
	5	7	9	12	16		26	35	47	62	83
	5	7	10	13	17		27	35	47	63	84
	6	8	11	14	19		27	36	48	64	85
	6	8	11	15	20		27	37	49	65	87
	7	9	12	16	21		28	37	50	66	88
	7	10	13	17	23		28	38	50	67	89
	8	10	14	18	24		29	38	51	68	91
	8	11	14	19	25		29	39	52	69	92
	8	11	15	20	27		30	39	53	70	93
	9	12	16	21	28		30	40	53	71	95
	9	12	17	22	29		30	41	54	72	96
	10	13	17	23	31		31	41	55	73	97
	10	14	18	24	32		31	42	56	74	99
	11	14	19	25	33		32	42	56	75	100
	11	15	20	26	35	24	32	43	57	76	
	11	15	20	27	36	24	32	43	58	77	
	12	16	21	28	37	25	33	44	59	78	
	12	16	22	29	39	25	33	44	59	79	
	13	17	23	30	40	25	34	45	60	80	
	13	17	23	31	41	26	34	46	61	81	
	14	18	24	32	43	26	35	46	62	82	
	14	19	25	33	44	26	35	47	62	83	
	14	19	26	34	45	27	35	47	63	84	
	15	20	26	35	47	27	36	48	64	85	
	15	20	27	36	48	27	36	48	65	86	
	16	21	28	37	49	28	37	49	65	87	
	16	21	29	38	51	28	37	50	66	88	
	16	22	29	39	52	28	38	50	67	89	
	17	23	30	40	53	28	38	51	68	90	
	17	23	31	41	55	29	38	51	68	91	
	18	24	32	42	56	29	39	52	69	92	
	18	24	32	43	57	29	39	52	70	93	
	19	25	33	44	59	30	40	53	71	94	
	19	25	34	45	60	30	40	53	71	95	
	19	26	35	46	61	30	41	54	72	96	
	20	26	35	47	63	31	41	55	73	97	
	20	27	36	48	64	31	41	55	74	98	
	21	28	37	49	65	31	42	56	74	99	
	21	28	38	50	67	32	42	56	75	100	

* Select the dilution series by finding the row which contains the permit limit in column #4.
NOTE: All values are in units of "% effluent" not toxic units.

C. DILUTION WATER

1. Marine and Estuarine Waters

A high quality natural water, such as the Manasquan River Inlet is strongly recommended as the dilution water source for chronic toxicity testing with marine and estuarine organisms. The use of the receiving water as the dilution water source is not required. Saline waters prepared with hypersaline brine and deionized water may also be used as dilution water. Hypersaline brines shall be prepared from a high quality natural seawater and shall not exceed a concentration of 100 ppt. The type of a dilution water for a permittee may not be changed without the prior approval of the Department.

The standard test salinity shall be 25 ppt, except for *Champia parvula,* which shall be tested at 30 ppt. Since most effluents are freshwater based, in most cases it will be necessary to adjust the salinity of the test concentrations to the standard test salinity.

2. Fresh Waters

A high quality natural water, such as Round Valley Reservoir (if access is allowed) or Lake Hopatcong, is strongly recommended as the dilution water source for chronic toxicity testing with freshwater organisms. It is not required to perform the toxicity testing with the receiving water as dilution water. Tests performed with a reconstituted water or up to 20% Diluted Mineral Water (DMW) as dilution water is acceptable. For testing with *Ceriodaphnia dubia*, the addition of 5 µg/l selenium (2 µg/l selenium with natural water) and 1 µg/l vitamin B12 is recommended (Keating and Dagbusan, 1984: Keating, 1985 and 1988). The source of a dilution water for a permittee may not be changed without the prior approval of the Department. Reconstituted water and DMW should be prepared with Millipore Super Q^R or equivalent, meet the requirements of N.J.A.C. 7:18-6 and should be aerated a minimum of 24 hrs prior to use, but not supersaturated.

D. EFFLUENT SAMPLE COLLECTION

Effluent samples shall be representative of the discharge being regulated. For each discharge serial number (DSN), the effluent sampling location shall be the same as that specified in the NJPDES permit for other sampling parameters unless an alternate sampling point is specified in the NJPDES discharge permit. For industrial dischargers with a combined process/sanitary waste stream, effluent sampling shall be after chlorination, unless otherwise designated in the permit.

For continuous discharges, effluent sampling shall consist of 24 hour composite samples consisting either of equal volumes taken once every hour or of a flow-proportionate composite sample, unless otherwise approved by the Department. At a minimum, three samples shall be collected as specified above, one every other day. The first sample shall be used for test initiation and the first renewal. The second sample for the next two renewals. The third sample shall be used for the final three renewals. For the *Champia* and *Selenastrum* tests, a single sample shall be collected not more than 24 hours prior to test initiation. No effluent sample shall be over 72 hours old at the time of its use to initiate or renew solutions in a test. It is acceptable to collect samples more frequently for chronic WET testing and if samples are collected daily for acute toxicity testing conducted concurrently, available samples may be used to renew the test solutions as appropriate.

For all other types of discharges, effluent sampling shall be conducted according to specifications contained within the discharge permit, methodology questionnaire or as otherwise specified by the Department. The use of grab samples or other special sampling procedures will be based on time of occurrence and duration of intermittent discharge events.

If a municipal discharger has concerns that the concentrations of ammonia and/or chlorine in an effluent are adequate to cause violations of the permit limit for chronic toxicity testing, the permittee should conduct analyses, as specified in USEPA's toxicity investigation methods documents, to illustrate the relationship between chronic effluent toxicity and chlorine and/or ammonia as applicable. This data may then be submitted to

the Department as justification for a request to use modified test procedures, which account for ammonia and/or chlorine toxicity, in future chronic toxicity tests. The Department may, where adequate justification exists, permit the adjustment of these pollutants in the effluent sample if discharge limits for these pollutants are contained in the NJPDES permit and those permit limitations are adequate for the protection of water quality. Any proposed modified test procedures to adjust effluent chlorine and/or ammonia shall be approved by the Department prior to use of those test procedures for any compliance testing.

Except for filtration through a 2 mm or larger screen or an adjustment to the standard test salinity, no other adjustments to the effluent sample shall be made without prior written approval by the Department. Aeration of samples prior to test start shall be minimized where possible and samples shall not be aerated where adequate saturation exists to maintain dissolved oxygen.

E. PHYSICAL CHEMICAL MEASUREMENTS

At a minimum, the physical chemical measurements shall be as follows:

- pH and dissolved oxygen shall be measured at the beginning and end of each 24 hour exposure period, in at least one chamber, of the high, medium and low test concentrations and the control. In order to ensure that measurements for these parameters are representative of the test concentrations during the test, measurements for these parameters should be taken in an additional replicate chamber for such concentrations which contains no test organisms, but is subject to the same test conditions.

- Temperature shall either be monitored continuously, measured daily in at least two locations in the environmental control system, or measured at the beginning of each 24 hr exposure period in at least one replicate for each treatment.

- Salinity shall be measured in all salt water tests at the beginning of each 24 hour exposure period, in at least one replicate for each treatment.

- For all freshwater tests, alkalinity, hardness and conductivity shall be measured in each new sample (100% effluent) and control.

- Nitrite, nitrate and ammonia shall be measured in the control before each renewal in the mysid test only.

- For samples of discharges where concentrations of ammonia and/or chlorine are known or are suspected to be sufficient to cause toxicity, it is recommended that the concentrations of these pollutants be determined and submitted with the standardized report form. The laboratory is advised to consult with the permittee to determine if these parameters should be measured in the effluent. Where such measurements are deemed appropriate, measurements shall be conducted at the beginning of each 24 hour exposure period. Also, since a rise in the test pH can affect the toxicity of ammonia in the effluent, analysis of ammonia during the test may be appropriate if a rise in pH is accompanied by a significant increase in mortality.

F. STATISTICS

The use of both hypothesis testing techniques and point estimate techniques are currently in use by the Department or by permittees for compliance purposes. The NJPDES permit should be checked to determine which type of analysis is required and appropriate for each specific facility. It is not acceptable to simply evaluate any data by "visual data review" unless in the analysis of survival data, no mortality occurred in the test. All data sets must be appropriately statistically evaluated.

For hypothesis testing techniques, statistical analysis shall follow the protocols in USEPA (1988, 1989) to evaluate adverse effects. A significance level of 0.05 shall be utilized to evaluate such effects. Use of a protocol not contained in these documents must be accompanied by a reference and explanation addressing its

applicability to the particular data set. Please note the following when evaluating data using hypothesis testing techniques.

Special attention should be given to the omission and inclusion of a given replicate in the analysis of mysid fecundity data (USEPA 1994, p. 275) and *Ceriodaphnia* reproduction data (USEPA 1994, page 174).

Determination of acceptability criteria and average individual dry weight for the growth endpoints must follow the specifications in the applicable documents (e.g., p.84 for saltwater methods document.)

Use of nonparametric statistical analyses requires a minimum of four replicates per test concentration. If the data for any particular test are not conducive to parametric analyses and if less than four replicates were included, the test may not be acceptable to the Department.

Where hypothesis testing is used for compliance purposes, if the results of hypothesis testing indicate that a deviation from the dose response occurs such that two test concentrations are deemed statistically significant from the control but an intermediate test concentration is not, the test is deemed unacceptable and cannot be used for compliance testing purposes.

For point estimate techniques, statistical analysis should follow the protocol contained in "A Linear Interpolation Method for Sublethal Toxicity: The Inhibition Concentration (ICp) Approach (Version 2.0), July 1993, National Effluent Toxicity Assessment Center Technical Report 03-93." Copies of the program can be obtained by contacting the Department. The linear interpolation estimate ICp values and not the bootstrap mean ICp, shall be reported for permit compliance purposes. The ICp value reported on the Discharge Monitoring Report shall be rounded off as specified in the Department's "Discharge Monitoring Report (DMR) Instruction Manual, December 1993." IC25 values shall be reported under the parameter code listed as "NOEC" on the DMR, until the DMR's are adjusted accordingly.

If the result reported by the ICp method is greater than the highest concentration tested, the test result is reported as "greater than C" where "C" is the highest tested concentration. If the ICp is lower than the lowest concentration tested, the test result is reported as "less than C" where "C" is the lowest tested concentration.

If separate NOEC's/IC25's can be calculated from multiple test endpoints, for example a reproductive endpoint and a growth endpoint, the lowest NOEC/IC25 value expressed in units of "% effluent" will be used to determine permit compliance and should, therefore, be reported as the NOEC/IC25 value for the test. If the NOEC value for growth and/or reproduction is not lower than that for survival, the NOEC/IC25 value reported for the test shall be as survival. For saltwater tests, where additional controls are used in a test (i.e. brine and/or artificial sea salt control), a T-test shall be used to determine if there is a significant difference between the original test control and the additional controls. If there is a significant difference between any of the controls, the test may be deemed unacceptable and if so, will not be used for permit compliance.

III. TEST ACCEPTABILITY CRITERIA

Any test that does not meet these acceptability criteria will not be used by the Department for any purpose and must be repeated as soon as practicable, with a freshly collected sample.

1. Tests must be performed by a laboratory approved for the conduct of chronic toxicity tests and certified for acute toxicity testing under N.J.A.C. 7:18.

2. Test results may be rejected due to inappropriate sampling, including the use of less than three effluent samples in a test and/or use of procedures not specified in a permit or methodology questionnaire, use of frozen or unrefrigerated samples or unapproved pretreatment of an effluent sample.

3. Controls shall meet the applicable performance criteria specified in the Table 2.0 and in the individual method specifications contained herein.

4. Acceptable and applicable Standard Reference Toxicant Data must be available for the test.

5. No unapproved deviations from the applicable test methodology may be present.

6. When using hypothesis testing techniques, a deviation from the dose response as explained in the statistical portion of this document shall not be present in the data.

Table 2.0: CONTROL PERFORMANCE

TEST ORGANISM	MINIMUM SURVIVAL	MINIMUM WEIGHT GAIN	MINIMUM FECUNDITY/ REPRODUCTION
Pimephales promelas	80%	0.25 mg avg	N/A
Ceriodaphnia dubia	80%	N/A	Average of ≥15 young per surviving female
Selenastrum capricornutum	Density ≥$2x10^5$cells/ml	N/A	Variability in controls not to exceed 20%.
Cyprinodon variegatus	80%	0.60 mg (unpreserved) avg 0.50 mg (preserved) avg	N/A
Menidia beryllina	80%	0.50 mg (unpreserved) avg 0.43 mg (preserved) avg	N/A
Mysidopsis bahia	80%	0.2 mg per mysid avg	egg production by 50% of control females if fecundity is used as an endpoint.
Champia parvula	100%	N/A	≥10 cystocarps per plant Plants in controls and lower test concentrations shall not fragment so that individual plants cannot be identified.

THE DETERMINATION OF A TEST AS UNACCEPTABLE DOES NOT RELIEVE THE FACILITY FROM MONITORING FOR THAT MONITORING PERIOD

IV. STANDARD REFERENCE TOXICANT TESTING

All chronic testing shall be accompanied by testing with a Standard Reference Toxicant (SRT) as a part of each laboratory's internal quality control program. Such a testing program should be consistent with the quality assurance/quality control protocols described in the USEPA chronic testing manuals. Laboratories may utilize the reference toxicant of their choice and toxicants such as cadmium chloride, potassium chloride, sodium dodecyl sulfate and copper sulfate are all acceptable. However, Potassium chloride has been chosen by several laboratories and is recommended by the Department. The concentration of the reference toxicant shall be verified by chemical analysis in the low and high test concentrations once each year or every 12 tests, whichever is less. It is not necessary to run SRT tests, for all species using the same SRT.

A. INITIAL STANDARD REFERENCE TOXICANT (SRT) TESTING REQUIREMENTS

At a minimum, this testing shall include an initial series of at least five SRT tests for each test species method. Acceptable SRT testing for chronic toxicity shall be performed utilizing the short term chronic toxicity test methods as specified herein. Reference toxicant tests utilizing acute toxicity testing methods, or any method other than those contained in this document are not acceptable. The laboratory should forward results of the initial SRT testing, including control charts, the name of the reference toxicant utilized, the supplier and appropriate chemical analysis of the toxicant to either address listed in the reporting requirements section herein. The initial series of a least five SRT tests for a specific test species method shall be completed and approved in writing by the Department prior to the conduct of any chronic toxicity testing for compliance purposes.

B. SUBSEQUENT SRT TESTING REQUIREMENTS

After receiving the initial approval from the Department to conduct chronic toxicity tests for compliance purposes, subsequent SRT testing shall be conducted as follows:

1. Where organisms used in testing are cultured at the testing laboratory, SRT testing should be conducted once per month for each species/method.

2. Where the laboratory purchases organisms from a laboratory certified in New Jersey for the conduct of acute toxicity testing and approved for the conduct of chronic toxicity testing for the test organism in question (i.e. the "supplier laboratory"), SRT data provided by the "supplier laboratory" for each lot of organisms purchased is acceptable as long as the SRT test result falls within the control limits of the control chart established by the "supplier laboratory" for that organism. The laboratory using purchased organisms is responsible for the results of any compliance tests they perform.

3. A testing laboratory purchasing organisms from a supplier laboratory must still perform SRT testing on a quarterly basis at a minimum, for each species they test with, in order to adequately document their own interlaboratory precision.

4. If a testing laboratory purchasing organisms elects not to use the SRT data from a "supplier laboratory" or such data is unavailable or where organisms are purchased from another organism supplier, the testing laboratory must conduct SRT testing on each lot of organisms purchased.

5. For industrial laboratories certified under N.J.A.C. 7:18 to conduct acute toxicity tests, only the SRT testing conditions specified in 2. through 4. above apply. Where that laboratory/facility cultures their own test organisms, the frequency of SRT testing required will be determined on a case by case basis, based on the frequency of testing for that facility.

NOTE: Based on these requirements, SRT data are considered applicable to a compliance test when the SRT test results are acceptable and the SRT test is conducted within 30 days of the compliance test, for the test species and SRT in question. Therefore, it is not necessary for an approved laboratory to run an SRT test every month if the laboratory is not conducting compliance tests for a particular species.

C. CHANGING OF AN ESTABLISHED REFERENCE TOXICANT

The SRT used for any species by a laboratory may be changed at any time provided that the following conditions have been satisfied:

1. A series of at least three reference toxicant tests are conducted with the new reference toxicant and the results of those tests are identified as satisfactory, in writing, by the Department.

2. Laboratories must continue using the already approved SRT in their ongoing QA/QC program, until such time as the letter referenced above, is received by the laboratory.

D. CONTROL CHARTS

Control charts shall be established from SRT test results in accordance with the procedures outlined in the USEPA methods documents. Control charts shall be constructed using IC25's using the following methods:

1. The upper and lower control limits shall be calculated by determining +/- two standard deviations above and below the mean.

2. SRT test results which exhibit an IC25 that is greater than the highest concentration tested or less than the lowest concentration tested (i.e. a definitive endpoint cannot be determined), shall not be used to establish control charts.

3. SRT tests which do not meet the acceptability criteria for a specific species shall not be used to establish control charts.

4. All values used in the control charts should be as nominal concentrations. However, the control charts shall be accompanied by a chart tabulating the test results as measured concentrations.

5. An outlier (i.e. values which fall outside the upper and lower control limits) should be included on the control chart unless it is determined that the outlier was caused by factors not directly related to the test organisms (e.g., test concentration preparation) as the source of variability would not be directly applicable to effluent tests. In such case, the result and explanation shall be reported to the Department within 30 days of the completion of the SRT test.

The control chart established for the initial series of SRT data submitted will be used by the laboratory and the Department to determine outliers from SRT test results reported in the "NJPDES Biomonitoring Report Form - Chronic Toxicity Test" submitted by the permittees for the test species. These initial control limits will remain unchanged until twenty SRT tests have been completed by the laboratory.

The following procedures shall be used for continually updating control charts after twenty acceptable SRT tests have been completed:

1. Once a laboratory has completed twenty acceptable SRT tests for a test species, the upper and lower control limits shall be recalculated with those twenty values.

2. For each successive SRT test conducted after these first twenty tests, a moving average shall be calculated and the control limits reevaluated using the last twenty consecutive test results.

3. The upper and lower control limits shall be reported on the "NJPDES Biomonitoring Report Form - Chronic Toxicity Tests" along with the SRT test result.

E. UNACCEPTABLE SRT TEST RESULTS

If a laboratory produces any SRT test results which are outside the established upper and lower control limits for a test species at a frequency greater than one test in any ten tests, a report shall be forwarded to the Department at the address contained herein. This report shall include any identified problem which caused the values to fall outside the expected range and the corresponding actions that have been taken by the laboratory. The Department may not accept or may require repeat testing for any toxicity testing that may have been affected by such an occurrence.

If a laboratory produces two consecutive SRT test results or three out of any ten test results which are outside the established upper and lower limits for a specific test species, the laboratory shall be unapproved to conduct chronic toxicity tests for compliance purposes for that test species. Reapproval shall be contingent upon the laboratory producing SRT test results within the established upper and lower control limits for that test species in two consecutive SRT tests. If one or both of those test results again fall outside the established control levels, the laboratory is unapproved for that test species until five consecutive test results within the established upper and lower control limits are submitted and approved by the Department.

F. ANNUAL SUBMITTALS

Control charts shall be forwarded to the Department on an annual basis, on the anniversary of approval for the test species.

The Department may request, at any time, any information which is essential in the evaluation of SRT results and/or compliance data.

V. TEST CANCELLATION / RESCHEDULING EVENTS

A lab may become aware of QA problems during or immediately following a test that will prevent data from being submitted or a lab may be unable to complete a tests due to sample collection or shipping problems. If for any reason a chronic toxicity test is initiated and then prematurely ended by the laboratory or at the request of the permittee, the laboratory shall submit the form entitled "Chronic Whole Effluent Toxicity Testing Test Cancellation / Rescheduling Event Form" contained herein. This form shall be used to detail the reason for prematurely ending the test. This completed form and any applicable raw data sheets shall be submitted to the appropriate biomonitoring program at the address above within 30 days of the cessation of the test.

Tests are considered to be initiated once test organisms have been added to all test chambers.

Submission of this form does not relieve the facility from monitoring for that monitoring period.

VI. REPORTING

The report form entitled "NJPDES Biomonitoring Report Form - Chronic Toxicity Tests" should be used to report the results of all NJPDES chronic compliance biomonitoring tests. Laboratory facsimiles are acceptable but must contain all information included on any recent revisions of the form by the Department. Statistical printouts and raw data sheets for all endpoints analyzed shall be included with the report submitted to the Department. Two copies of all chronic toxicity test report forms shall be submitted to the following address as applicable:

Bureau of Point Source Permitting Region 1 **OR**
Bureau of Point Source Permitting Region 2 (as indicated in the cover letter)

New Jersey Department of Environmental Protection
Division of Water Quality
PO Box 29
Trenton, NJ 08625-0029

It is not necessary to attach a copy of a test report form to the Discharge Monitoring Report (DMR) form when submitting this form to the Department. However, the results of all chronic toxicity tests conducted for compliance purposes must be reported on the DMR form under the appropriate parameter code in the monitoring period in which the test was conducted.

VII. METHOD SPECIFICATIONS

The following method specifications shall be followed as specified in the NJPDES permit. Any changes to these methods will not be considered acceptable unless they are approved in writing by the Department, prior to their use.

A. Fathead Minnow (*Pimephales promelas*), Larval Survival and Growth Test, method 1000.0
B. *Ceriodaphnia dubia*, Survival and Reproduction Test, method 1002.0
C. Algal, (*Selenastrum capricornutum*), Growth Test, method 1003.0
D. Sheepshead Minnow (*Cyprinodon variegatus*), Larval Survival and Growth Test, method 1005.0
E. Inland Silverside (*Menidia beryllina*), Larval Survival and Growth Test, method 1006.0
F. *Mysidopsis bahia*, Survival, Growth, and Fecundity Test, method 1007.0
G. *Champia parvula*, Sexual Reproduction Test, method 1009.0

VIII. REFERENCES

1. Keating, K. 1985. The influence of Vitamin B12 deficiency on the reproduction of Daphnia pulex Leydig (Cladocera). J. Crustacean Biology 5:130-136.

2. Keating, K. 1988. N.J.D.E.P. Project C29589, Fiscal 1988 Third Quarter Summary Report. Producing Nutritionally Competent Daphnids for Use in Bioassay. 44p.

3. Keating, K., and B. Dagbusan. 1984. Effect of selenium deficiency on cuticle integrity in Cladocera (Crustacea). Proc. Natl. Acad. Sci. USA 81:3433-3437.

4. NJDEP, 1993. Discharge Monitoring Report (DMR) Instruction Manual.

5. USEPA. 1994. Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms. EPA-600/4-91-003. July 1994. Second Edition.

6. USEPA. 1994. Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. EPA/600/4-91/002. July 1994. Third Edition.

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
PO Box 29
TRENTON, NEW JERSEY 08625-0029
BIOMONITORING PROGRAM

CHRONIC WHOLE EFFLUENT TOXICITY TESTING
TEST CANCELLATION / RESCHEDULING EVENT FORM

THIS FORM IS TO BE COMPLETED AND SUBMITTED TO THE DEPARTMENT DIRECTLY BY THE LABORATORY CONDUCTING CHRONIC TOXICITY TESTS WHENEVER A CHRONIC TOXICITY TEST IS PREMATURELY ENDED FOR ANY REASON

NJPDES No.: _____

FACILITY NAME: _____

LOCATION: _____

CONTACT: _____ PHONE: _____

CANCELLATION EVENT:

LABORATORY NAME / NUMBER: _____

CONTACT: _____

TEST START DATE: ____/____/____ TEST END DATE: ____/____/____

REASON FOR CANCELLATION: _____

_____

_____

_____

_____

_____

EFFLUENT SAMPLING:

SAMPLING POINT / DESCRIPTION OF SAMPLING SITE: _____

_____

SAMPLING INITIATED: DATE: ____/____/____ TIME: _____

SAMPLING ENDED: DATE: ____/____/____ TIME: _____

NUMBER OF EFFLUENT SAMPLES COLLECTED: _____

SAMPLE TYPE (GRAB/COMPOSITE): _____

RECEIVED IN LAB BY/FROM: _____

_____

METHOD OF SHIPMENT: _____

(ALL APPLICABLE RAW DATA SHEETS MUST BE ATTACHED)

c: Permittees authorized agent.

REQUEST FOR PERMIT AUTHORIZATION

NJPDES/
DISCHARGE TO SURFACE WATER PERMIT

CATEGORY BGR
GENERAL REMEDIATION CLEAN-UP

NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER QUALITY

STANDARD CHLORINE CHEMICAL CO. (SCCC)
AND DIAMOND SITES
KEARNY, NEW JERSEY

Prepared for:

SCCC, INC. AND TIERRA SOLUTIONS, INC.

Prepared by:

Key Environmental, Inc.
456 US Highway 22 West, Suite 3
Whitehouse Station, New Jersey 08889

October 2009

TABLE OF CONTENTS

SECTION **TITLE**

New Jersey Department of Environmental Protection - Division of Water Quality

REQUEST FOR AUTHORIZATION (RFA) CHECKLIST

NJPDES/Discharge to Surface Water Permit

Category BGR - General Groundwater Remediation Cleanup Permit Authorization

TO HELP US PROCESS YOUR RFA MORE EFFICIENTLY, PLEASE PROVIDE ALL ITEMS LISTED BELOW.

This checklist is provided to you as guidance for completing a Request for Authorization (RFA) under NJPDES/DSW permit NJ0155438. Should you have any questions pertaining to the applicability of the BGR master general permit to a discharge scenario; the resulting effluent limitations and requirements; or questions regarding completion of the RFA forms, please contact the Bureau of Surface Water Permitting at (609) 292-4860.

Be sure to read all instructions and answer all questions when filling out the following RFA forms. If an item is not applicable, enter "N/A" or a similarly appropriate response.

☑ **FORM NJPDES - 1** - Instructions are provided with the form.
Be sure to indicate in items 5 and 9B if the treated groundwater will be conveyed to the receiving waterbody through a storm drainage system. If a storm drainage system will be used, indicate in item 9 who has ownership of such storm drainage system [e.g., municipality, county or New Jersey Department of Transportation (NJDOT)]. Be sure to obtain local approval if you will discharge to a municipal or county storm drainage system. If you will make an attachment to or install drainage facilities to any NJDOT drainage structure or within the state highway system, a separate drainage permit may be required to be obtained from the NJDOT. Please refer to Attachment I for more information regarding NJDOT projects.

☑ **EVIDENCE OF RFA SUBMISSION TO THE AFFECTED SEWERAGE ENTITY(IES) AND MUNICIPALITY** - Applicable for NEW discharges or for a change in the location or method of discharge for EXISTING discharges. Submit copies of the signed and dated notices that were sent along with the RFA to the affected sewerage entity(ies) and municipality via certified mail return receipts requested or by other means of verification, and copies of the dated certified mail return receipts or other means of verification of receipt.

NOTE: Prior to submitting an RFA to the Department, submit the following to the affected sewerage entity(ies) and municipality in accordance with N.J.A.C. 7:14A-4.3(a)13:

1. A copy of the RFA.
2. A written notice (certified mail return receipt requested or by other means which allows verification of the fact and date of receipt) that the sewerage entity(ies) and municipality must submit to the Department written comments regarding or objections to the proposed discharge or activity within 30 days of receipt of said notice. The Department shall consider these comments in determining whether to issue an authorization.

☑ **NJPDES TECHNICAL FORM (Form C) -** Detailed instructions are provided on the form. **Complete all Items, except Item 7.**

Note: The applicant must also perform and submit the results of at least **ONE REPRESENTATIVE ANALYSIS OF THE UNTREATED WASTEWATER** from a recovery well, monitoring well, or from an excavation resulting from the area that will under go remediation or other sources. The Department recognizes that Form C requires that effluent data be included; however, for the purposes of the BGR permit, untreated wastewater data is required. All applicants should submit the most recent representative data. However, the analytical data must all be from the same sampling event and must have occurred no more

than 12 months before the date of RFA submission. Instead of including RFA data in items 10A, B, C and D of Form C, applicants may specify "See attached Ground Water Characterization Report" and attach copies of analytical results and laboratory datasheets. Samples shall be collected in accordance with the current NJDEP Field Sampling Procedures Manual which is available for download at the following web address: www.state.nj.us/dep/srp/guidance/fspm/. All analyses must be performed by a NJ certified laboratory. The analysis shall address the following compounds:

- **Conventional/Non-conventional Compounds:**
  Total Organic Carbon, Total Suspended Solids, pH, Oil and Grease.

- **Toxic Metal Compounds:**
  Total Recoverable Antimony, Total Recoverable Arsenic, Total Recoverable Beryllium, Total Recoverable Cadmium, Total Recoverable Chromium, Total Recoverable Copper, Total Recoverable Lead, Total Recoverable Mercury, Total Recoverable Nickel, Total Recoverable Selenium, Total Recoverable Silver, Total Recoverable Thallium, Total Recoverable Zinc**.**

- **Volatile Compounds:** Analysis by GC/MS scan using EPA Method 624.

- **Acid Compounds:** Analysis by GC/MS scan using EPA Method 625.

- **Base Neutral Compounds:** Analysis by GC/MS scan using EPA Method 625.

- **Pesticides**.

The Department, as part of the technical review, may require additional analytical requirements based on site-specific conditions.

☑ **BGR CERTIFICATION FORM**
Administrative Certification. The signature must be completed according to N.J.A.C. 7:14A-4.9. The permittee is required to publish the following in a daily or weekly newspaper within the affected area for one day to request authorization under the General Permit pursuant to N.J.A.C. 7:14A-6.13(d)3. The following public notice shall be used as established in the General Permit:

"Notice is hereby given that pursuant to N.J.A.C. 7:14A-6.13(d)3, _____ [name of applicant] intends to submit a request for authorization under the General Groundwater Remediation Cleanup Permit, No.NJ0155438 to the N.J. Department of Environmental Protection. This authorization will allow _____ [name and address of facility] to discharge treated groundwater from remediation projects into select surface waters of the State."

☑ **RESIDUALS APPLICATION FORM – R**
Instructions are provided with the form.

☑ **TREATMENT WORKS APPROVAL**
Prior to discharge and upon issuance of a Final permit, a General Industrial Treatment Works Approval (GI TWA) may be required for the construction of a treatment works (N.J.A.C. 7:14A-22) which will enable you to meet the limits and conditions of the NJPDES permit. If you have any questions or comments regarding the TWA, please contact Nick Horiates, TWA Review Unit, in the Bureau of Financing & Construction Permits at (609) 984-6840.

SUBMIT ONE ORIGINAL AND ONE COPY OF THE RFA TO:
New Jersey Department of Environmental Protection
Office of Permit Management, P.O. Box 029, Trenton, New Jersey 08625-0029
Attn.: Administrative Review Unit

ATTACHMENT I

STORM DRAINAGE SYSTEMS UNDER THE JURISDICTION OF THE NJDOT

If the applicant will make an attachment or install drainage facilities to any NJDOT storm drainage system or within the state highway system, it shall contact the appropriate NJDOT office below:

Northern Office 973-770-5140	**Counties:**	Bergen Essex, Hudson, Morris, Passaic, Sussex, Union and Warren (North of Route 57 only)
Central Office 732-308-4106	**Counties:**	Hunterdon, Mercer, Middlesex, Monmouth, Ocean, Somerset and Warren (South of Route 57 only)
Southern Office 609-486-6638	**Counties:**	Burlington, Camden, Gloucester, Cumberland, Cape May, Atlantic and Salem

NJPDES-1

NEW JERSEY POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT APPLICATION

State of New Jersey Department of Environmental Protection
Division of Water Quality

State of New Jersey
Department of Environmental Protection
Division of Water Quality

New Jersey Pollutant Discharge Elimination System Permit Application

Refer to Instructions on Page 6 and the Appropriate Completeness Checklist and Provide All Applicable Information. Please Print or Type. (Attach additional sheets if necessary)

1. Applicant(s)/Operating Entity(ies)*

Name Standard Chlorine Chemical Co., Inc. and Tierra Solutions, Inc.

Mailing Address See Form NJPDES-1 Attachment A

City or Town _____ State _____ Zip Code _____

Federal Tax I.D.# _____ Telephone ( ) _____

Fax ( ) _____ E-Mail _____

Parent Corporation & Place of Incorporation N/A

2. Property/Land Owner(s)

Name See Form NJPDES-1 Attachment A

Mailing Address _____

City or Town _____ State _____ Zip Code _____

Federal Tax I.D.# _____ Telephone ( ) _____

3. Location of Facility/Site

Name of Facility/Site Standard Chlorine Chemical Co., Inc. Site and Diamond Site

Street Address/Location 1025-1035, 1015 Belleville Turnpike

City or Town Kearny State NJ Zip Code 07032

Municipality Township of Kearny County Hudson County EPA I.D. # NJD002175057

4. Facility Contact (Person Familiar with the Facility/Site and this Application)

Name Peter Sawchuck Telephone (908) 534-4501, (207)772-8100

Affiliation Key Environmental, Inc.

City or Town Whitehouse Station State NJ Zip Code 08889

Fax (908) 534-6785 E-Mail psawchuck@keyenvir.com

* If you wish to receive MRFs and/or Billing notices at a different address, please complete and submit the "Request to Send MRFs and/or Billing Notices to an Address Different Than Listed in NJPDES 1" form.

5. PROJECT and DISCHARGE DESCRIPTION (Under This Application)

SCCC and/or Tierra are required to remediate the SCCC and Diamond Sites, and a portion of the Former Koppers Seaboard Site. The IRAW (October, 2008) requires construction of a barrier wall with hydraulic control via groundwater extraction. Two treatment plants will be constructed that will require treated water to be discharged into the Hackensack River:
1) Hydraulic Control Treatment System (HCTS) to treat extracted groundwater and discharged via Outfall 001, and
2) Temporary Construction Treatment System (TCTS) to treat waters generated during construction activities (Outfalls 002/003).
Treated TCTS water will be discharged at one of two (2) outfalls, depending on plant location.

6. REQUESTED NJPDES PERMIT ACTION AND OTHER NJPDES PERMITS

Under Table A, for each requested permit action under this application, list each discharge activity associated with this facility/site in the left column using the discharge activity category codes listed in the Discharge Activity Category Sheet (i.e., A, A8, CSO, etc.) and check the requested permit action (new, renewal, etc.). Under Table B, list currently held permits and/or pending applications for this facility/site. For existing permits, list permit number(s) and expiration date.

TABLE A: REQUESTED PERMIT ACTION UNDER THIS APPLICATION

DISCHARGE ACTIVITY (CATEGORY) CODES	PERMIT NUMBER	EXPIR. DATE	NEW	RENEW.	MOD.	REVOC.	REVOC. & REISSUE
BGR	NJ0155438		x				

TABLE B: OTHER NJPDES PERMITS ASSOCIATED WITH THIS FACILITY

DISCHARGE ACTIVITY (CATEGORY) CODES	PERMIT NO.	EXP. DATE	PENDING

7. OTHER PERMITS

If any of the following applications have been submitted for this facility/site, complete the applicable information.

Permit Type	Application No. (if assigned)	Application Status: Approved Date	Application Status: Denied Date	Application Status: Pending ✓
● Treatment Works Approval (Municipal - Industrial)	To be submitted			✓
● Exemption From Sewer Ban				
● Water Quality Management Plan Amendment				
● Potable Water Supply Well				
● Hazardous Waste Management Program				
● Prevention of Significant Deterioration (PSD)				
● Nonattainment Program, Clean Air Act				
● National Emission Standards - Hazardous Pollutants				
● Ocean Dumping Permits (Marine Protection Act)				
● Dredge/Fill Permits - Federal Act Section 404				
● Relevant Environmental Permits - Including Federal, State, & Local Approvals - Specify:				
● See NJPDES-1 Attachment A for additional permits				

8. STANDARD INDUSTRIAL CLASSIFICATION CODE(S):

SIC Code #	(✓) if assigned by NJ Dept. of Labor	Products or Service Provided by Facility/Site
N/A		Remediation Project; no active facilities

9. WATER SUPPLY/DISCHARGE INFORMATION

RAW WATER SOURCES: Please check ☑ all that apply.

✓ Public Water Supply: Name of the water utility Town of Kearny Water Department

____ Private Wells

____ Surface Water: Name of the surface waters ____

A) Is this facility/site connected to a sanitary or combined sewer? ____ Yes ✓ No

If yes, list name, address, and phone number of receiving wastewater treatment plant:

____

B) Does this facility discharge to a storm drainage system? ____ Yes ✓ No

If yes, please check ☑: ____ Public ____ Private

C) Does this facility discharge to surface water? ✓ Yes ____ No

D) Does this facility discharge to ground water? ____ Yes ✓ No

10. LICENSED OPERATOR(S) (IF APPLICABLE)

Name Frank Janiec N.J. License No. N2 - Industrial # 0005453

Affiliation Stream and Sky Enterprises

Mailing Address 195 Beekman Lane

City or Town Hillsborough State NJ Zip Code 08884

Telephone (908) 642-0099 Fax (908) 359-1040

E-Mail sse@patmedia.net

11. APPLICANT'S AGENT (Optional)

The person listed below is authorized to act as agent/representative in all matters pertaining to this application.

Name Peter Sawchuck, P.E. Position Project Manager

Company Key Environmental, Inc.

Mailing Address 456 US Highway 22 West, Suite 3

City or Town Whitehouse Station State NJ Zip Code 08889

Telephone (908) 534-4501, (207)772-8100 Fax (908) 534-6785

E-Mail psawchuck@keyenvir.com

Signature of Agent — Date 10/08/09

Signature for Applicant — Date 10/12/09

Signature for Applicant — Date 10/13/09

12. PROPERTY OWNER'S CERTIFICATION (FOR DGW PERMITS ONLY)

I hereby certify that _____
(Property Owner's Name)
owns the property identified in (d.) below. The owner grants permission for the activity to be permitted under this application and authorizes the Department to conduct on-site inspections, if necessary.

In addition, I certify: (check "yes" or "no")	**YES**	**NO**
a. The activity will take place in an easement?	_____	_____
b. Part of the entire project (e.g. pipeline, disposal area, wells, etc.) is or will be located within property owned by the State of New Jersey?	_____	_____
c. Part of the entire project (e.g. pipeline, disposal area, wells, etc.) is or will be located within property owned by a municipality or county? (If "yes", contact the Green Acres Program at (609) 984-0500 for an applicability determination.)	_____	_____

d. LOT _____

BLOCK _____

_____ _____
Signature for Owner Date

_____
Print or Type: Name

_____
Print or Type: Position

Note: If "yes" to statements a, b, or c, the applicant must provide evidence of obtaining permission from the other property owners (include copy with this application).

13. CERTIFICATION BY APPLICANT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for purposely, knowingly, recklessly, or negligently submitting false information."

Margaret W. Kelly 10/13/09 Margaret W. Kelly, Esq.
Signature for Applicant Date Print or Type: Name

Vice President, General Council
Standard Chlorine Chemical Co., Inc.
Print or Type: Position

_____ 10/12/09 David Rabbe
Signature for Applicant Date Print or Type: Name

President
Tierra Solutions, Inc.
Print or Type: Position

INSTRUCTIONS FOR COMPLETING FORM NJPDES - 1

This form shall accompany all NJPDES permit applications and Requests for Authorizations (RFA) - (excluding RFA's for Stormwater General Permits which use different forms).

1. **Applicant(s)/Operating Entities** - Provide the name, as it is legally referred to, of the operating entity(ies) that is the applicant(s) in your application for the NJPDES permit. An "operating entity" is any firm, public agency, individual, or other entity which, alone or along with other operating entities, has primary management and operational decision-making authority over any part of a facility/site.

   It is the duty of the operating entity(ies) to obtain a NJPDES permit. When a facility/site or activity is owned by one or more entities, but is currently operated by another entity(ies), it is the duty of the operating entity(ies) to obtain a NJPDES permit. If the facility/site named in Item 3 has an operating entity(ies) which is not an applicant submitting your application, attach an additional sheet that contains a statement to that effect and as much Item 1 information as you have about that operating entity(ies).

   Provide the mailing address of the applicant(s). If the mailing address is outside the United States, provide the correct foreign mailing address. Provide the 9-digit Federal Tax Identification Number (also called Federal Identification Number) assigned to the applicant(s) by the IRS for tax reporting purposes. Provide the telephone number (and, if they exist, the fax number and e-mail address) of the applicant(s). If the applicant(s) has a parent corporation(s), provide that parent corporation's name and place of incorporation.
2. **Property/Land Owner(s)** - Provide the legal name of the owner(s) of the property/land upon which the discharge is controlled and/or taking place. A "Property" includes all contiguous lots and blocks, including vacant land, owned or otherwise under the control of the owner or operating entity of the regulated facility. NOTE: For all DGW applications, the property owner where the discharge takes place must also sign item 12.
3. **Location of Facility/Site** - Provide the location of the facility/site. Street number and name must be used (PO Box #'s will not be acceptable). Use the municipality and county where the facility/site is physically located. Do not use local or neighborhood names.
4. **Facility Contact** - Identify a person the Department can contact for facility/site related information. This person should be familiar with the content of the application.
5. **Project and Discharge Description (Under This Application)** - Provide a brief description of the project relating to this application (e.g., municipal sewage treatment plant, factory, shopping center, school, housing development, restaurant, etc.). For each discharge which is the subject of this application, provide the general type of waste discharged (e.g., sanitary, industrial, sludge, etc.) including non-contact cooling water. If requesting a modification to your permit, state the reason for such.
6. **Requested NJPDES Permitting Action and Other NJPDES Permits** - Under Table A, for each requested permit action under this application, list each discharge activity associated with this facility/site in the left column using the discharge activity category codes listed in the Discharge Activity Category Sheet (i.e., A, A8, CSO, etc.) and check the requested permit action (new, renewal, etc.). Under Table B, list currently held permits and/or pending applications for this facility/site. For existing permits, list permit number(s) and expiration date.
7. **Other Permits -** This section provides the Department with a facility's permitting status and history. Next to each permit type, list the application number and the date of the approval or denial in the appropriate column. If the application is still pending, place a check in the far right hand column.
8. **Standard Industrial Classification Code -** List, in descending order of priority, up to four 4-digit Standard Industrial Classification (SIC) codes which best reflect the principal products or services provided by the facility/site. These codes are available in the Standard Industrial Classification Manual (1987) issued by the Federal Office of Management and Budget (OMB). (Do not use the codes in the North American Industrial Classification System (NAICS) for the United States adopted by OMB in 1997.) For each SIC code, list the products or services provided. If the NJ Dept. of Labor (NJDOL) has assigned the applicant an SIC code(s), the list of SIC codes shall include, but not necessarily be limited to, the SIC "Industry Code" located in the upper left hand corner of NJDOL's Quarterly Contributions Report (with a check mark next to that code).
9. **Water Supply/Discharge Information** - Provide the overall facility/site water management practices water usage, and disposal for the entire facility/site provided by the facility/site. Do not limit yourself to Item 8, Table A.

10. **Licensed Operator (If Applicable) -** Provide information pertaining to all licensed operator(s) of the treatment work(s).
11. **Applicant's Agent (Optional)** - Identify the person who is authorized to act as agent/representative in all matters pertaining to this application. Both the agent and the authorized official of the applicant must sign.
12. **Property Owner's Certification (For DGW Permits Only)** - Provide this certification for the property where the discharge takes place.
13. **Certification by Applicant** - The certification must be made by the applicant(s) for the NJPDES permit. The applicant(s) is the operating entity(ies) for the facility/site (see item 1 instructions). All signatures in items 11, 12 and 13 must be original signatures.

WHO MUST SIGN?

FOR A CORPORATION: a "responsible corporate officer" or duly authorized representative. A "responsible corporate officer" is (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

FOR A PARTNERSHIP OR SOLE PROPRIETORSHIP: a general partner or the proprietor, respectively, or duly authorized representative.

FOR A MUNICIPALITY, STATE, FEDERAL OR OTHER PUBLIC AGENCY: either a principal executive officer or ranking elected official, or duly authorized representative.

A "responsible corporate officer," general partner, proprietor, principal executive officer of a public agency, or ranking elected official may assign his or her signatory authority for this Certification to a duly authorized representative, which is a named individual or generic position (e.g., plant manager, operator of a well or a well field, superintendent) having overall responsibility for facility/site operation or the company's or public agency's environmental matters, by submitting a letter to the Bureau of Permit Management stating said authority and naming the individual or position.

Should you need assistance in completing the application, please call the appropriate phone number listed below:

- **Discharges to Surface Water (Industrial)**
  (609) 292-4860 or (609) 633-3869
- **Discharges to Surface Water (Municipal)**
  (609) 292-4860 or (609) 633-3869
- **Discharges to Surface Water (Stormwater)**
  (609) 633-7021
- **Sludge and Residuals Issues**
  (609) 633-3823
- **Indirect Discharges (SIU)**
  (609) 633-3823
- **Discharges to Ground Water**
  (609) 292-0407

Discharge Activity Category Sheet

For completing the left columns in the NJPDES 1 Form, item 6, tables A and B

Discharge to Surface Water (DSW)
• **A** Domestic Surface Water Discharge
• **CSO** Combined Sewer Overflow
• **B** Industrial/Commercial/Thermal DSW
• **B4B** GW Petroleum Products Cleanup GP
• **BGR** General Remediation Clean-up GP
• **CG** Non-Contact Cooling Water GP
Discharge to Ground Water (DGW)
• **GW** Discharge to Ground Water
• **T1** GP Sanitary Subsurface Disposal
• **I1** GP Stormwater Basins/Sanitary Landfill
• **I2** GP Potable Water Treatment Plant Basins/Drying Beds
• **LSI** GP Lined Surface Impoundment
• **K2** GP Dental Facilities Onsite Wastewater Treatment Systems
Residuals and SIU Discharges
• **L** Discharge to POTW (SIU)
• **D** Land Application of Biosolids - Class B
• **V** Land Application of Biosolids - Class A
• **E** Land Application of Industrial Residuals
• **Z** Residuals Transfer Facilities
• **04** Residuals Phragmites Reed Beds
• **EG** Land Application Food Processing Residual GP
• **ZG** Residuals Transfer Facilities GP
• **4G** Residuals Phragmites Reed Beds GP
Stormwater Discharges
• **RF** Stormwater
Use the following for Table B only
• **CPM** Concrete Products Management GP
• **SM** Scrap Metal Processing/Auto Recycling GP
• **5G2** Stormwater Basic GP
• **5G3** Construction Activity Stormwater GP
• **R4** Hot Mix Asphalt Producers GP
• **R5** Newark Airport Complex GP
• **R7** Wood Recyclers
• **R8** Concentrated Animal Feeding Operations (CAFO) GP
• **R9** Tier A Municipal Stormwater GP
• **R10** Tier B Municipal Stormwater GP
• **R11** Public Complex Stormwater GP
• **R12** Highway Agency Stormwater GP
• **R13** Mining And Quarrying Activity GP

Request to Send Monitoring Report Forms and/or Billing Notices to an Address Different Than Listed in NJPDES Form 1

Complete and submit with application package ***only*** if monitoring report forms and/or billing notices should sent to an address other than listed in item 1 of the NJPDES 1 form.

NJPDES Permit No. NJ_____

Please send *Monitoring Report Forms* to the following address:

Name: Peter Sawchuck

Mailing Address: 456 US Highway 22 West, Suite 3

City or Town: Whitehouse Station

State: NJ Zip Code: 08889

Please send *Billing Notices* to the following address:

Company Name:_____

Mailing Address:_____

City or Town:_____

State:_____ Zip Code:_____

Billing Contact_____

Contact Phone ( )_____Contact Email_____

NJPDES-1 - attachment A

1. APPLICANT(S)/OPERATING ENTITY (IES)

Name	**Standard Chlorine Chemical Co., Inc.**	**Tierra Solutions, Inc.**
Mailing Address	**1035 Belleville Turnpike Kearny, NJ 07032**	**Two Tower Center Boulevard - 10 FL East Brunswick, NJ 08816**
Phone/Fax	**201-997-1700/212-249-0616**	**732-247-3400/732-246-5858**
Email	**mwkscc1@aol.com**	**ecastro@tierra-inc.com**
Federal Tax I.D.	**22-147097**	**75-2120498**

2. PROPERTY/LAND OWNER(S)

Name:	**Standard Chlorine Chemical Co., Inc.**	**Tierra Solutions, Inc.**	**Hudson County Improvement Authority**
Mailing Address:	**1025-1035 Belleville Tpk Kearny, NJ 07032**	**Two Tower Center Blvd - 10 FL East Brunswick, NJ 08816**	**574 Summit Avenue - 5th FL Jersey City, NJ 07306**
Phone Fax	**201-997-1700 212-249-0616**	**732-247-3400 732-246-5858**	**201-795-4555 201-795-0240**
Email:	**mwkscc1@aol.com**	**drabbe@tierra-inc.com**	**norman@hcia.org**
Federal Tax I.D.	**22-147097**	**75-2120498**	**52-144 1773**

7. OTHER PERMITS *[continued]*

Permit Type	Application No. (if assigned)	Approved Date	Denied Date	Pending
● **Minor Source Air Permit**	To be submitted			✓
● **Department of the Army Permit**	Not required per letter of October 5, 2009			✓
● **NJMC Zoning Permit**	To be submitted			✓
● **Tidelands Grant Permit**	To be submitted			✓
● **Soil Conservation District Certification**	Submitted on September 29, 2009; number to be assigned			✓
● **Town of Kearny – Construction Permit**	To be submitted			✓
● **NJ Division of Land Use Regulation (DLUR) Permit - includes Waterfront Development Permit, Water Quality Consistency Determination, Coastal Wetlands Permit, and Flood Hazard Area Individual Permit.**	Submitted on September 14, 2009; number to be assigned			✓
● **US EPA, Applicable or Relevant and Appropriate Requirements (ARARs) Consistency Review (SCCC Site only).**	Submitted on September 14, 2009; number to be assigned			✓

Notification and Evidence

TOWN OF KEARNY

Public Notice

Take Notice that an application has been submitted to the New Jersey Department of Environmental Protection, Division of Water Quality, Office of Permit Management, NJPDES Permit No. NJ0155438 for the project described below:

APPLICANT:	Standard Chlorine Chemical Co., Inc. (SCCC) and Tierra Solutions, Inc.
PROJECT NAME:	Standard Chlorine Chemical Co., Inc. (SCCC) Site and Diamond Site
PROJECT DESCRIPTION:	The applicants will be conducting remediation of the Standard Chlorine Chemical Co., Inc. (SCCC) Site, the adjoining Diamond Site, and portions of the Former Koppers Seaboard Site in Kearny, Hudson County, NJ in accordance with a NJDEP-approved Interim Response Action Workplan (IRAW) prepared to comply with N.J.A.C. 7:26E.
PROJECT STREET ADDRESS:	♦ ***SCCC Site:*** 1025 - 1035 Belleville Turnpike ♦ ***Diamond Site:*** 1015 Belleville Turnpike
BLOCK:	287
LOTS:	♦ ***SCCC Site:*** 32.01, 48, 49, 50, 51, 52, and 52R ♦ ***Diamond Site:*** 32.02, 46, 47, and 47 R ♦ ***Portions of Former Koppers Site:*** 32.01, 54, 55, 56, 61B and 62
MUNICIPALITY:	Town of Kearny
COUNTY:	Hudson

The complete permit application package can be reviewed at either the municipal clerk's office or by appointment at the Department's Trenton office. The Department of Environmental Protection welcomes comments and any information that you may provide concerning the proposed project and site. Please submit your written comments within 30 days of receiving this notice to:

New Jersey Department of Environmental Protection
Office of Permit Management
P.O. Box 029, Trenton, NJ 08625-0029
Attn: Administrative Review Unit

Virginia Cuenca

From: legals [legals@jjournal.com]
Sent: Thursday, October 15, 2009 11:41 AM
To: vcuenca@keyenvir.com
Subject: RE: Legal Notice for publication in Town of Kearny Jersey Journal

Virginia,
As per our telephone conversation 10.20 pub date confirmed.
Price to follow.
Thank you,
Mayda

From: Virginia Cuenca [mailto:vcuenca@keyenvir.com]
Sent: Wednesday, October 14, 2009 3:32 PM
To: legals
Subject: Legal Notice for publication in Town of Kearny Jersey Journal

Attention Mayda
Jersey Journal Legal Notices Department
Please post the Public Notice (below and attached) in the next publication of JJ's Kearny, Hudson County edition, and provide written confirmation of publishing date.
Thank you.

Virginia Cuenca
KEY ENVIRONMENTAL INCORPORATED
Whitehouse Station, NJ
908-534-4501

PUBLIC NOTICE
Take Notice that an application has been submitted to the New Jersey Department of Environmental Protection, Division of Water Quality, Office of Permit Management, NJPDES Permit No. NJ0155438 for the project described below:

APPLICANT: Standard Chlorine Chemical Co., Inc. (SCCC) and Tierra Solutions, Inc.

PROJECT NAME: Standard Chlorine Chemical Co., Inc. (SCCC) Site and Diamond Site

PROJECT DESCRIPTION: The applicants will be conducting remediation of the Standard Chlorine Chemical Co., Inc. (SCCC) Site, the adjoining Diamond Site, and portions of the Former Koppers Seaboard Site in Kearny, Hudson County, NJ in accordance with a NJDEP-approved Interim Response Action Workplan (IRAW) prepared to comply with N.J.A.C. 7:26E.

PROJECT STREET ADDRESS: ***SCCC Site:*** 1025 - 1035 Belleville Turnpike;
Diamond Site: 1015 Belleville Turnpike

BLOCK: 287

LOTS: ***SCCC Site:*** 32.01, 48, 49, 50, 51, 52, and 52R;
Diamond Site: 32.02, 46, 47, and 47 R;
Portions of Former Koppers Site: 32.01, 54, 55, 56, 61B and 62

MUNICIPALITY: Town of Kearny

COUNTY: Hudson

The complete permit application package can be reviewed at either the municipal clerk's office or by appointment at the Department's Trenton office. The Department of Environmental Protection welcomes comments and any information that you may provide concerning the proposed project and site. Please submit your written comments within 30 days of receiving this notice to:

New Jersey Department of Environmental Protection
Office of Permit Management
P.O. Box 029, Trenton, NJ 08625-0029
Attn: Administrative Review Unit

KEY ENVIRONMENTAL INCORPORATED

October 15, 2009

Joseph D'Arco
Town Clerk
Town of Kearny
402 Kearny Avenue
Kearny, NJ 07032

RE: **Notification of RFA Submission**
Standard Chlorine Chemical Co., Inc. Site (SCCC) -
Block 287, Lots 32.01, 48, 49, 50, 51, 52, and 52R;
Diamond Site - Block 287, Lots 32.02, 46, 47, and 47 R, and
Portions of Former Koppers Site - Block 287, 32.01, 54, 55, 56, 61B and 62

Dear Sir:

On behalf of Standard Chlorine Chemical Co., Inc. (SCCC) and Tierra Solutions, Inc. (Tierra), this letter is to provide you with written notification that an Application for Discharge to Surface Water (BGR Category) – General Remedial Discharge Application will be submitted to the New Jersey Department of Environmental Protection, Division of Water Quality, Office of Permit Management, NJPDES Permit No. NJ0155438. This Permit will allow SCCC and Tierra to discharge treated water resulting from the remediation activities associated with the Standard Chlorine Chemical Co., Inc. (SCCC) and Diamond Sites into the Hackensack River. SCCC is also remediating target groundwater on portions of the Former Koppers Site. Remediation at the Sites is being conducted in accordance with the NJDEP-approved Interim Remediation Action Workplan (IRAW) prepared to comply with N.J.A.C.7:26E.

As part of the permit requirements, the attached copy of the permit application package is being provided to the Municipality in which the activities are proposed. The Department of Environmental Protection welcomes comments and any information that you may provide concerning the proposed project and site. Please submit your written comments within 30-days of receiving this notice to:

New Jersey Department of Environmental Protection
Office of Permit Management
P.O. Box 029, Trenton, NJ 08625-0029
Attn: Administrative Review Unit

Do not hesitate to contact me if you have any questions.

Sincerely,

Peter Sawchuck, PE
Vice President

Enclosure

456 US Highway 22 West, Suite 3 • Whitehouse Station, New Jersey 08889 • (908) 534-4501 • Fax: (908) 534-6785

From: Origin ID: JVIA (908) 534-4501
Peter Sawchuck
Key Environmental, Inc.
456 US Highway 22 West

Whitehouse Station, NJ 08889

J09300907312023

Ship Date: 16OCT09
ActWgt: 3.0 LB
CAD: 3846666/INET9090
Account#: S *********

Delivery Address Bar Code

Ref # 09803/04 BGR-NJPDES Permit App
Invoice #
PO #
Dept #

SHIP TO: (201) 955-7400 **BILL SENDER**

JOSEPH D'ARCO, MUNICIPAL CLERK
TOWN OF KEARNY
402 KEARNY AVE

KEARNY, NJ 07032

TRK# 0201 7960 3773 0829

MON - 19OCT **A1**
STANDARD OVERNIGHT

K1 ANNA

07032
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EWR

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic valueof the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Virginia Cuenca

From: TrackingUpdates@fedex.com
Sent: Friday, October 16, 2009 10:58 AM
To: vcuenca@keyenvir.com
Subject: FedEx Shipment Notification

This tracking update has been requested by:

Company Name: Key Environmental, Inc.
Name: Peter Sawchuck
E-mail: psawchuck@keyenvir.com

Peter Sawchuck of Key Environmental, Inc. sent JOSEPH D'ARCO, MUNICIPAL CLERK of TOWN OF KEARNY 1 FedEx Standard Overnight package(s).

This shipment is scheduled to be sent on 10/16/2009.

Reference information includes:

Reference: 09803/04 BGR-NJPDES Permit App
Special handling/Services: Deliver Weekday
Status: Shipment information sent to FedEx
Tracking number: 796037730829

To track the latest status of your shipment, click on the tracking number above, or visit us at fedex.com.
Learn more about new ways to track with FedEx.
This tracking update has been sent to you by FedEx on the behalf of the Requestor noted above. FedEx does not validate the authenticity of the requestor and does not validate, guarantee or warrant the authenticity of the request, the requestor's message, or the accuracy of this tracking update. For tracking results and fedex.com's terms of use, go to fedex.com.

Thank you for your business.

NJPDES Technical Form C

SUPPLEMENTAL APPLICATION FORM TO NJPDES-1
FOR BGR NJPDES/DSW PERMIT

State of New Jersey Department of Environmental Protection
Division of Water Quality

FORM C
03/09

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER QUALITY

C

Refer to appropriate completeness checklist and instructions. Provide all applicable information.
Please print or type. (Attach additional sheets if necessary).

SUPPLEMENTAL APPLICATION FORM TO NJPDES-1 FOR INDUSTRIAL NJPDES/DSW PERMITS

1. FACILITY NAME: SCCC/Diamond Sites *

2. NJPDES NO. (NEW APPLICANTS LEAVE BLANK) NJ

3. THE PERMIT APPLICATION SHALL INCLUDE: See Attachment A

- **A. FACILITY DIAGRAM** - Figure 1
- **B. LINE DRAWING** - Figures 2 & 3
- **C. USGS MAP** - Figure 4

4. OUTFALL LOCATION

For each outfall, list the latitude, longitude and the name of the receiving water.

OUTFALL NUMBER	LATITUDE (deg, min, sec)	LONGITUDE (deg, min, sec)	RECEIVING WATER (name)	USEPA REACH No.	WATERSHED MANAGEMENT AREA
001	40° 44' 58.75"	74° 05' 43.40"	Hackensack River		
002**	40° 44' 58.84"	74° 05' 43.46"	Hackensack River		
003**	40° 45' 03.59"	74° 05' 47.12"	Hackensack River		

PROPOSED DISCHARGE DATE: January 2010

For Department Use Only

5. FLOWS, POLLUTANT SOURCES, AND TREATMENT TECHNOLOGIES

OUTFALL NUMBER (DSN)	OPERATION CONTRIBUTING FLOW		TREATMENT TECHNOLOGIES	
	NAME OF OPERATION OR PROCESS (LIST)	AVERAGE FLOW (INCLUDE UNITS)	DESCRIPTION	CODES FROM TABLE 1
001	Hydraulic Control Treatment System	20 GPM Average 50 GPM Maximum	Reduction	2-L
			Chemical Precipitation	2-C
			Coagulation/Flocculation	2-D
			Sedimentation (Settling)	1-U
			Carbon Adsorption	2-A
			Pressure Filtration	5-R
002	Temporary Construction Treatment System	65 GPM Maximum	Reduction	2-L
			Chemical Precipitation	2-C
			Coagulation/Flocculation	2-D
			Sedimentation (Settling)	1-U
003	Same as Outfall 002		Carbon Adsorption	2-A
			Multimedia Filtration	1-Q
			Pressure Filtration	5-R

* Standard Chlorine Chemical Co., Inc. Site and Diamond Site

** As indicated in NJPDES-1, discharge is temporary and necessary for barrier wall construction. As such, outfall location will vary between 002 and 003, depending on location of site construction activities.

FORM C
03/09

C

FACILITY NAME: SCCC/Diamond Sites

6. INTERMITTENT OR SEASONAL DISCHARGES

Except for stormwater runoff, leaks, or spills, are any of the discharge(s) described in Item 5 intermittent or seasonal?

☒ YES (complete the following table) ☐ NO (go to Item 7)

OUTFALL NUMBER (DSN)	FREQUENCY		FLOW				
	DAYS PER WEEK (SPECIFY AVERAGE)	MONTHS PER YEAR (SPECIFY AVERAGE)	FLOW RATE (in mgd)		TOTAL VOLUME (specify units)		DURATION IN DAYS
			monthly average	daily maximum	monthly average	daily maximum	
002, 003	6	12	0.099 MGD	0.099 MGD	2.63 MG	99,000 gal	540 days

7. PRODUCTION BASED EFFLUENT STANDARDS

A. Does an effluent guideline promulgated by USEPA under the Clean Water Act apply to any discharge this application is made for?

☐ YES (complete 7B) ☒ NO (go to Item 8)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)?

☐ YES (complete 7C) ☐ NO (go to Item 8)

C. If you answered "yes" to Item 7B, list the quantities which represent an actual measurement or estimate of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

YEAR	QUANTITY PER DAY	UNITS OF MEASURES	OPERATION, PRODUCT, MATERIAL, ETC. (SPECIFY)	OUTFALL NUMBER

8. ENFORCEMENT/CORRECTIVE ACTIONS

Identify each AO, ACO, JCO, NOV, COMP (if known to the applicant), or other (OT) corrective or enforcement action(s) required by NJDEP, USEPA or any other governmental agency(ies), and provide a brief summary of the action.

DATE	ACTION	AGENCY	SUMMARY OF REQUIRED ACTION
Oct. 1989	ACO	NJDEP	SCCC Site Remediation
April 1990	ACO	NJDEP	Diamond Site Remediation

9. IMPROVEMENTS

Complete this table if you are required by federal, state or local authority to meet any implementation schedule for construction, upgrading or operation of the wastewater treatment equipment or practices, or any other environmental programs which may affect the discharges described in this application (i.e., permit conditions, administrative orders, etc.).

IDENTIFICATION OF CONDITIONS, AGREEMENTS, ETC.	AFFECTED OUTFALLS		DESCRIPTION OF PROJECT	FINAL COMPLIANCE DATE	
	DSN	SOURCES		REQUIRED	PROJECTED
Interim Response Action Workplan (IRAW)	001	Hydraulic Control System	Groundwater Treatment		Ongoing
Interim Response Action Workplan (IRAW)	002/003	Temporary Construction Treatment System	Water and Ground-water Treatment		March 2011

FORM C For Outfall 001, refer to Attachment B, Influent and Effluent Data for the Hydraulic Control Treatment System.

03/09 (For Outfalls 002/003, refer to Attachment C, Analytical Information for Temporary Construction Treatment System.)

C

FACILITY NAME: SCCC/Diamond Sites **OUTFALL NUMBER (DSN):** 001

10A. EFFLUENT DATA – PART A

POLLUTANT	EFFLUENT							Intake (Optional)		
	Daily Maximum		Monthly Average		# of samples	Units		Average		# of samples
	Conc.	loading	conc.	loading		conc.	loading	conc.	loading	
Biochemical Oxygen Demand (BOD_5)										
Chemical Oxygen Demand (COD)										
Total Organic Carbon (TOC)										
Total Suspended Solids (TSS)										
Total Dissolved Solids (TDS)										
Ammonia (as N)										
UNITS AS INDICATED										
Flow (specify units)	Daily Max.		Monthly Avg.							
Temperature (*winter*)	Daily Max.		Monthly Avg.			°C				
Temperature (*summer*)	Daily Max.		Monthly Avg.			°C				
pH	minimum	maximum				STANDARD UNITS		minimum	maximum	

10B. EFFLUENT DATA – PART B

POLLUTANT (AND CAS NUMBER WHERE AVAILABLE)	MARK "X" believed present	MARK "X" believed absent	EFFLUENT Daily Maximum conc.	Daily Maximum loading	Monthly Average conc.	Monthly Average loading	# of samples	Units conc.	Units loading	INTAKE (Optional) Average conc.	Average loading	# of samples
CONVENTIONAL and NON-CONVENTIONAL POLLUTANTS												
Bromide (24959-67-9)												
Chlorine, Total Residual												
Color, (specify units)												
Fecal Coliform												
Fluoride (16984-48-8)												
Nitrate-Nitrite (as N)												

FORM C 03/09 For Outfall 001, refer to Attachment B, Influent and Effluent Data for the Hydraulic Control Treatment System.

(For Outfalls 002/003, refer to Attachment C, Analytical Information for Temporary Construction Treatment System.)

C

FACILITY NAME: SCCC/Diamond Sites | **OUTFALL NUMBER (DSN):** 001

10B. EFFLUENT DATA – PART B (continued)

POLLUTANT (AND CAS NUMBER IF AVAILABLE)	MARK "X" believed present	MARK "X" believed absent	EFFLUENT Daily Maximum conc.	EFFLUENT Daily Maximum loading	EFFLUENT Monthly Average conc.	EFFLUENT Monthly Average loading	# of samples	EFFLUENT Units conc.	EFFLUENT Units loading	INTAKE (Optional) Average conc.	INTAKE (Optional) Average loading	INTAKE (Optional) # of samples
Nitrogen, Total Organic (as N)												
☐ Oil & Grease or ☐ Pet. Hydrocarbons												
Phosphorus (as P), Total (7723-14-0)												
Alpha, Total												
Beta, Total												
Radium, Total												
Radium 226, Total												
Surfactants												
Sulfide (as S)												
Sulfite (as SO_3) (14265-45-3)												
Sulfate (as SO_4) (14808-79-8)												
Aluminum, Total (7429-90-5)												
Barium, Total (7440-39-3)												
Boron, Total (7440-42-8)												
Cobalt, Total (7440-48-4)												
Iron, Total (7439-89-6)												
Magnesium, Total (7439-95-4)												
Molybdenum, Total (7439-98-7)												
Manganese, Total(7439-96-5)												
Tin, Total (7440-31-5)												
Titanium, Total (7440-32-6)												

FORM C For Outfall 001, refer to Attachment B, Influent and Effluent Data for the Hydraulic Control Treatment System.

03/09 (For Outfalls 002/003, refer to Attachment C, Analytical Information for Temporary Construction Treatment System.)

C

FACILITY NAME: SCCC/Diamond Sites **OUTFALL NUMBER (DSN):** 001

10C. EFFLUENT DATA – PART C

☐ If you do not analyze a sample for certain Item 10C pollutants because you qualify as a "Small Business" (see instructions for details), check this box and attach sales data for the most recent three years.

POLLUTANT (AND CAS NUMBER IF AVAILABLE)	MARK "X"			EFFLUENT							INTAKE (Optional)		
	testing required	believed present	believed absent	Daily Maximum conc.	Daily Maximum loading	Monthly Average conc.	Monthly Average loading	# of samples	Units conc.	Units loading	Average conc.	Average loading	# of samples
OTHER TOXIC POLLUTANTS (METALS and CYANIDE) and TOTAL PHENOLS													
Antimony, Total (7440-36-0)													
Arsenic, Total (7440-38-2)													
Beryllium, Total (7440-41-7)													
Cadmium, Total (7440-43-9)													
Chromium, Total (7440-47-3)													
Copper, Total (7550-50-8)													
Lead, Total (7439-92-1)													
Mercury, Total (7439-97-6)													
Nickel, Total (7440-02-0)													
Selenium, Total (7782-49-2)													
Silver, Total (7440-22-4)													
Thallium, Total (7440-28-0)													
Zinc, Total (7440-66-6)													
Cyanide, Total (57-12-5)													
Phenols, Total													
DIOXIN													
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)													

FORM C For Outfall 001, refer to Attachment B, Influent and Effluent Data for the Hydraulic Control Treatment System.

03/09 (For Outfalls 002/003, refer to Attachment C, Analytical Information for Temporary Construction Treatment System.)

C

FACILITY NAME: SCCC/Diamond Sites **OUTFALL NUMBER (DSN):** 001

10C. EFFLUENT DATA – PART C (continued)

POLLUTANT (AND CAS NUMBER IF AVAILABLE)	MARK "X"			EFFLUENT							INTAKE (Optional)		
	testing required	believed present	believed absent	Daily Maximum conc.	Daily Maximum loading	Monthly Average conc.	Monthly Average loading	# of samples	Units conc.	Units loading	Average conc.	Average loading	# of samples
ORGANIC TOXIC POLLUTANTS – VOLATILES													
Acrolein (107-02-8)													
Acrylonitrile (107-13-1)													
Benzene (71-43-2)													
Bromoform (75-25-2)													
Carbon Tetrachloride (56-23-5)													
Chlorobenzene (108-90-7)													
Chlorodibromomethane (124-48-1)													
Chloroethane (75-00-3)													
2-Chloro-ethyl-vinyl Ether (110-75-8)													
Chloroform (67-66-3)													
Dichlorobromomethane (75-27-4)													
1,1-Dichloroethane (75-34-3)													
1,2-Dichloroethane (107-06-2)													
1,1-Dichloroethylene (75-35-4)													
1,2-Dichloropropane (78-87-5)													
1,3-Dichloropropylene (542-75-6)													
Ethylbenzene (100-41-4)													
Methyl Bromide (74-83-9)													
Methyl Chloride (74-87-4)													

FORM C For Outfall 001, refer to Attachment B, Influent and Effluent Data for the Hydraulic Control Treatment System.

03/09 (For Outfalls 002/003, refer to Attachment C, Analytical Information for Temporary Construction Treatment System.)

C

FACILITY NAME: SCCC/Diamond Sites **OUTFALL NUMBER (DSN):** 001

10C. EFFLUENT DATA – PART C (continued)

POLLUTANT (AND CAS NUMBER IF AVAILABLE)	MARK "X"			EFFLUENT							INTAKE (Optional)		
	testing required	believed present	believed absent	Daily Maximum conc.	Daily Maximum loading	Monthly Average conc.	Monthly Average loading	# of samples	Units conc.	Units loading	Average conc.	Average loading	# of samples
ORGANIC TOXIC POLLUTANTS – VOLATILES (continued)													
Methylene Chloride ((75-09-2)													
1,1,2,2-Tetrachloroethane (79-34-5)													
Tetrachloroethylene (127-18-4)													
Toluene (108-88-3)													
1,2-Transdichloroethylene (156-60-5)													
1,1,1-Trichloroethane (71-55-6)													
1,1,2-Trichloroethane (79-00-5)													
Trichloroethylene (79-01-6)													
Vinyl Chloride (75-01-4)													
ORGANIC TOXIC POLLUTANTS – ACID COMPOUNDS													
2-Chlorophenol (95-57-8)													
2,4-Dichlorophenol (120-83-2)													
2,4-Dimethylphenol (105-67-9)													
4,6-Dinitro-O-Cresol (534-52-1)													
2,4-Dinitrophenol (51-28-5)													
2-Nitrophenol (88-75-5)													
4-Nitrophenol (100-02-7)													
P-Chloro-M-Cresol (59-50-7)													
Pentachlorophenol (87-86-5)													
Phenol (108-95-2)													
2,4,6-Trichlorophenol (88-06-2)													

FORM C For Outfall 001, refer to Attachment B, Influent and Effluent Data for the Hydraulic Control Treatment System.

03/09 (For Outfalls 002/003, refer to Attachment C, Analytical Information for Temporary Construction Treatment System.)

C

FACILITY NAME: SCCC/Diamond Sites | **OUTFALL NUMBER (DSN):** 001

10C. EFFLUENT DATA – PART C (continued)

POLLUTANT (AND CAS NUMBER IF AVAILABLE)	MARK "X"			EFFLUENT							INTAKE (Optional)		
	testing required	believed present	believed absent	Daily Maximum conc.	Daily Maximum loading	Monthly Average conc.	Monthly Average loading	# of samples	Units conc.	Units loading	Average conc.	Average loading	# of samples
ORGANIC TOXIC POLLUTANTS – BASE/NEUTRAL COMPOUNDS													
Acenaphthene (83-32-9)													
Acenaphthylene (208-96-8)													
Anthracene (120-12-7)													
Benzidine (92-87-5)													
Benzo (a) Anthracene (56-55-3)													
Benzo (a) Pyrene (50-32-8)													
3,4-Benzofluoranthene (205-99-2)													
Benzo (ghi) Perylene (191-24-2)													
Benzo (k) Fluoranthene (207-08-9)													
Bis (2-Chloroethoxy) Methane (111-91-1)													
Bis (2-Chloroethyl) Ether (111-44-4)													
Bis (2-Chloroisopropyl) Ether (102-60-1)													
Bis (2-Ethylhexyl) Phthalate (117-81-7)													
4-Bromophenyl Phenyl Ether (101-55-3)													
Butyl Benzyl Phthalate (85-68-7)													
2-Chloronaphthalene (91-58-7)													
4-Chlorophenyl Phenyl Ether (7005-72-3)													
Chrysene (218-01-9)													
Dibenzo (a,h) Anthracene (53-70-3)													

FORM C For Outfall 001, refer to Attachment B, Influent and Effluent Data for the Hydraulic Control Treatment System.

03/09 (For Outfalls 002/003, refer to Attachment C, Analytical Information for Temporary Construction Treatment System.)

C

FACILITY NAME: SCCC/Diamond Sites **OUTFALL NUMBER (DSN):** 001

10C. EFFLUENT DATA – PART C (continued)

POLLUTANT (AND CAS NUMBER IF AVAILABLE)	MARK "X"			EFFLUENT							INTAKE (Optional)		
	testing required	believed present	believed absent	Daily Maximum conc.	Daily Maximum loading	Monthly Average conc.	Monthly Average loading	# of samples	Units conc.	Units loading	Average conc.	Average loading	# of samples
ORGANIC TOXIC POLLUTANTS – BASE/NEUTRAL COMPOUNDS (continued)													
1,2-Dichlorobenzene (95-50-1)													
1,3-Dichlorobenzene (541-73-1)													
1,4-Dichlorobenzene (106-46-7)													
3,3 –Dichlorobenzidine (91-94-1)													
Diethyl Phthalate (84-66-2)													
Dimethyl Phthalate (131-11-3)													
Di-N-Butyl Phthalate (84-74-2)													
2,4-Dinitrotoluene (121-14-2)													
2,6-Dinitrotoluene (606-20-2)													
Di-N-Octyl Phthalate (117-84-0)													
1,2-Diphenylhydrazine (122-66-7)													
Fluoranthene (206-44-0)													
Fluorene (86-73-7)													
Hexachlorobenzene (118-74-1)													
Hexachlorobutadiene (87-68-3)													
Hexachlorocyclopentadiene (77-47-4)													
Hexachloroethane ((67-72-1)													
Indeno (1,2,3-cd) Pyrene (193-39-5)													
Isophorone (78-59-1)													

FORM C For Outfall 001, refer to Attachment B, Influent and Effluent Data for the Hydraulic Control Treatment System.

03/09 (For Outfalls 002/003, refer to Attachment C, Analytical Information for Temporary Construction Treatment System.)

C

FACILITY NAME: SCCC/Diamond Sites **OUTFALL NUMBER (DSN):** 001

10C. EFFLUENT DATA – PART C (continued)

POLLUTANT (AND CAS NUMBER IF AVAILABLE)	MARK "X"			EFFLUENT							INTAKE (Optional)		
	testing required	believed present	believed absent	Daily Maximum conc.	Daily Maximum loading	Monthly Average conc.	Monthly Average loading	# of samples	Units conc.	Units loading	Average conc.	Average loading	# of samples
ORGANIC TOXIC POLLUTANTS – BASE/NEUTRAL COMPOUNDS (continued)													
Naphthalene (91-20-3)													
Nitrobenzene (98-95-3)													
N-Nitrosodimethylamine (62-75-9)													
N-Nitrosodi-N-Propylamine (621-64-7)													
N-Nitrosodiphenylamine (86-30-6)													
Phenanthrene (85-01-8)													
Pyrene (129-00-0)													
1,2,4-Trichlorobenzene (120-82-1)													
ORGANIC TOXIC POLLUTANTS – PESTICIDES													
Aldrin (309-00-2)													
Alpha-BHC (319-84-6)													
Beta-BHC (319-85-7)													
Gamma-BHC (58-89-9)													
Delta-BHC (319-86-8)													
Chlordane (57-74-9)													
4,4'-DDT (50-29-3)													
4,4'-DDE (72-55-9)													
4,4'-DDD (72-54-8)													
Dieldrin (60-57-1)													

FORM C For Outfall 001, refer to Attachment B, Influent and Effluent Data for the Hydraulic Control Treatment System.

03/09 (For Outfalls 002/003, refer to Attachment C, Analytical Information for Temporary Construction Treatment System.)

C

FACILITY NAME: SCCC/Diamond Sites **OUTFALL NUMBER (DSN):** 001

10C. EFFLUENT DATA – PART C (continued)

POLLUTANT (AND CAS NUMBER IF AVAILABLE)	MARK "X"			EFFLUENT							INTAKE (Optional)		
	testing required	believed present	believed absent	Daily Maximum Conc.	Daily Maximum loading	Monthly Average conc.	Monthly Average loading	# of samples	Units conc.	Units loading	Average conc.	Average loading	# of samples
ORGANIC TOXIC POLLUTANTS – PESTICIDES (continued)													
Alpha-Endosulfan (115-29-7)													
Beta-Endosulfan (115-29-7)													
Endosulfan sulfate (1031-07-8)													
Endrin (72-20-8)													
Endrin Aldehyde (7421-93-4)													
~~Heptachlor (76-44-8)~~													
Heptachlor Epoxide (1024-57-3)													
PCB-1242 (53469-21-9)													
PCB-1254 (11097-69-1)													
PCB-1221 (11104-28-2)													
PCB-1232 (11141-16-5)													
PCB-1248 (12672-29-6)													
PCB-1260 (11096-82-5)													
PCB-1016 (12674-11-2)													
Toxaphene (8001-35-2)													

FORM C For Outfalls 002/003, see Attachment C, Analytical Information for Temporary Construction Treatment System. **C**

03/09 (For Outfall 001, refer to Attachment B, Influent and Effluent Data for the Hydraulic Control Treatment System.)

FACILITY NAME: SCCC/Diamond Sites **OUTFALL NUMBER (DSN):** 002/003

10A. EFFLUENT DATA – PART A

POLLUTANT	EFFLUENT							Intake (Optional)		
	Daily Maximum		Monthly Average		# of samples	Units		Average		# of samples
	Conc.	loading	conc.	loading		conc.	loading	conc.	loading	
Biochemical Oxygen Demand (BOD_5)										
Chemical Oxygen Demand (COD)										
Total Organic Carbon (TOC)										
Total Suspended Solids (TSS)										
Total Dissolved Solids (TDS)										
Ammonia (as N)										
UNITS AS INDICATED										
Flow (specify units)	Daily Max.		Monthly Avg.							
Temperature (*winter*)	Daily Max.		Monthly Avg.			°C				
Temperature (*summer*)	Daily Max.		Monthly Avg.			°C				
pH	minimum	maximum				STANDARD UNITS		minimum	maximum	

10B. EFFLUENT DATA – PART B

POLLUTANT (AND CAS NUMBER WHERE AVAILABLE)	MARK "X" believed present	MARK "X" believed absent	EFFLUENT							INTAKE (Optional)		
			Daily Maximum		Monthly Average		# of samples	Units		Average		# of samples
			conc.	loading	conc.	loading		conc.	loading	conc.	loading	
CONVENTIONAL and NON-CONVENTIONAL POLLUTANTS												
Bromide (24959-67-9)												
Chlorine, Total Residual												
Color, (specify units)												
Fecal Coliform												
Fluoride (16984-48-8)												
Nitrate-Nitrite (as N)												

FORM C For Outfalls 002/003, see Attachment C, Analytical Information for Temporary Construction Treatment System. **C**
03/09 (For Outfall 001, refer to Attachment B, Influent and Effluent Data for the Hydraulic Control Treatment System.)

FACILITY NAME: SCCC/Diamond Sites | **OUTFALL NUMBER (DSN):** 002/003

10B. EFFLUENT DATA – PART B (continued)

POLLUTANT (AND CAS NUMBER IF AVAILABLE)	MARK "X" believed present	MARK "X" believed absent	EFFLUENT Daily Maximum conc.	EFFLUENT Daily Maximum loading	EFFLUENT Monthly Average conc.	EFFLUENT Monthly Average loading	# of samples	EFFLUENT Units conc.	EFFLUENT Units loading	INTAKE (Optional) Average conc.	INTAKE (Optional) Average loading	INTAKE (Optional) # of samples
Nitrogen, Total Organic (as N)												
☐ Oil & Grease or ☐ Pet. Hydrocarbons												
Phosphorus (as P), Total (7723-14-0)												
Alpha, Total												
Beta, Total												
Radium, Total												
Radium 226, Total												
Surfactants												
Sulfide (as S)												
Sulfite (as SO_3) (14265-45-3)												
Sulfate (as SO_4) (14808-79-8)												
Aluminum, Total (7429-90-5)												
Barium, Total (7440-39-3)												
Boron, Total (7440-42-8)												
Cobalt, Total (7440-48-4)												
Iron, Total (7439-89-6)												
Magnesium, Total (7439-95-4)												
Molybdenum, Total (7439-98-7)												
Manganese, Total(7439-96-5)												
Tin, Total (7440-31-5)												
Titanium, Total (7440-32-6)												

FORM C For Outfalls 002/003, see Attachment C, Analytical Information for Temporary Construction Treatment System.
03/09 (For Outfall 001, refer to Attachment B, Influent and Effluent Data for the Hydraulic Control Treatment System.)

C

FACILITY NAME: SCCC/Diamond Sites | **OUTFALL NUMBER (DSN):** 002/003

10C. EFFLUENT DATA – PART C

☐ If you do not analyze a sample for certain Item 10C pollutants because you qualify as a "Small Business" (see instructions for details), check this box and attach sales data for the most recent three years.

POLLUTANT (AND CAS NUMBER IF AVAILABLE)	MARK "X"			EFFLUENT							INTAKE (Optional)		
	testing required	believed present	believed absent	Daily Maximum conc.	Daily Maximum loading	Monthly Average conc.	Monthly Average loading	# of samples	Units conc.	Units loading	Average conc.	Average loading	# of samples
OTHER TOXIC POLLUTANTS (METALS and CYANIDE) and TOTAL PHENOLS													
Antimony, Total (7440-36-0)													
Arsenic, Total (7440-38-2)													
Beryllium, Total (7440-41-7)													
Cadmium, Total (7440-43-9)													
Chromium, Total (7440-47-3)													
Copper, Total (7550-50-8)													
Lead, Total (7439-92-1)													
Mercury, Total (7439-97-6)													
Nickel, Total (7440-02-0)													
Selenium, Total (7782-49-2)													
Silver, Total (7440-22-4)													
Thallium, Total (7440-28-0)													
Zinc, Total (7440-66-6)													
Cyanide, Total (57-12-5)													
Phenols, Total													
DIOXIN													
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)													

FORM C For Outfalls 002/003, see Attachment C, Analytical Information for Temporary Construction Treatment System. **C**

03/09 (For Outfall 001, refer to Attachment B, Influent and Effluent Data for the Hydraulic Control Treatment System.)

FACILITY NAME: SCCC/Diamond Sites **OUTFALL NUMBER (DSN):** 002/003

10C. EFFLUENT DATA – PART C (continued)

POLLUTANT (AND CAS NUMBER IF AVAILABLE)	MARK "X"			EFFLUENT							INTAKE (Optional)		
	testing required	believed present	believed absent	Daily Maximum conc.	Daily Maximum loading	Monthly Average conc.	Monthly Average loading	# of samples	Units conc.	Units loading	Average conc.	Average loading	# of samples
ORGANIC TOXIC POLLUTANTS – VOLATILES													
Acrolein (107-02-8)													
Acrylonitrile (107-13-1)													
Benzene (71-43-2)													
Bromoform (75-25-2)													
Carbon Tetrachloride (56-23-5)													
Chlorobenzene (108-90-7)													
Chlorodibromomethane (124-48-1)													
Chloroethane (75-00-3)													
2-Chloro-ethyl-vinyl Ether (110-75-8)													
Chloroform (67-66-3)													
Dichlorobromomethane (75-27-4)													
1,1-Dichloroethane (75-34-3)													
1,2-Dichloroethane (107-06-2)													
1,1-Dichloroethylene (75-35-4)													
1,2-Dichloropropane (78-87-5)													
1,3-Dichloropropylene (542-75-6)													
Ethylbenzene (100-41-4)													
Methyl Bromide (74-83-9)													
Methyl Chloride (74-87-4)													

FORM C For Outfalls 002/003, see Attachment C, Analytical Information for Temporary Construction Treatment System. **C**

03/09 (For Outfall 001, refer to Attachment B, Influent and Effluent Data for the Hydraulic Control Treatment System.)

FACILITY NAME: SCCC/Diamond Sites **OUTFALL NUMBER (DSN):** 002/003

10C. EFFLUENT DATA – PART C (continued)

POLLUTANT (AND CAS NUMBER IF AVAILABLE)	MARK "X"			EFFLUENT							INTAKE (Optional)		
	testing required	believed present	believed absent	Daily Maximum conc.	Daily Maximum loading	Monthly Average conc.	Monthly Average loading	# of samples	Units conc.	Units loading	Average conc.	Average loading	# of samples
ORGANIC TOXIC POLLUTANTS – VOLATILES (continued)													
Methylene Chloride ((75-09-2)													
1,1,2,2-Tetrachloroethane (79-34-5)													
Tetrachloroethylene (127-18-4)													
Toluene (108-88-3)													
1,2-Transdichloroethylene (156-60-5)													
1,1,1-Trichloroethane (71-55-6)													
1,1,2-Trichloroethane (79-00-5)													
Trichloroethylene (79-01-6)													
Vinyl Chloride (75-01-4)													
ORGANIC TOXIC POLLUTANTS – ACID COMPOUNDS													
2-Chlorophenol (95-57-8)													
2,4-Dichlorophenol (120-83-2)													
2,4-Dimethylphenol (105-67-9)													
4,6-Dinitro-O-Cresol (534-52-1)													
2,4-Dinitrophenol (51-28-5)													
2-Nitrophenol (88-75-5)													
4-Nitrophenol (100-02-7)													
P-Chloro-M-Cresol (59-50-7)													
Pentachlorophenol (87-86-5)													
Phenol (108-95-2)													
2,4,6-Trichlorophenol (88-06-2)													

FORM C For Outfalls 002/003, see Attachment C, Analytical Information for Temporary Construction Treatment System. **C**

03/09 (For Outfall 001, refer to Attachment B, Influent and Effluent Data for the Hydraulic Control Treatment System.)

FACILITY NAME: SCCC/Diamond Sites **OUTFALL NUMBER (DSN):** 002/003

10C. EFFLUENT DATA – PART C (continued)

POLLUTANT (AND CAS NUMBER IF AVAILABLE)	MARK "X"			EFFLUENT							INTAKE (Optional)		
	testing required	believed present	believed absent	Daily Maximum conc.	Daily Maximum loading	Monthly Average conc.	Monthly Average loading	# of samples	Units conc.	Units loading	Average conc.	Average loading	# of samples
ORGANIC TOXIC POLLUTANTS – BASE/NEUTRAL COMPOUNDS													
Acenaphthene (83-32-9)													
Acenaphthylene (208-96-8)													
Anthracene (120-12-7)													
Benzidine (92-87-5)													
Benzo (a) Anthracene (56-55-3)													
Benzo (a) Pyrene (50-32-8)													
3,4-Benzofluoranthene (205-99-2)													
Benzo (ghi) Perylene (191-24-2)													
Benzo (k) Fluoranthene (207-08-9)													
Bis (2-Chloroethoxy) Methane (111-91-1)													
Bis (2-Chloroethyl) Ether (111-44-4)													
Bis (2-Chloroisopropyl) Ether (102-60-1)													
Bis (2-Ethylhexyl) Phthalate (117-81-7)													
4-Bromophenyl Phenyl Ether (101-55-3)													
Butyl Benzyl Phthalate (85-68-7)													
2-Chloronaphthalene (91-58-7)													
4-Chlorophenyl Phenyl Ether (7005-72-3)													
Chrysene (218-01-9)													
Dibenzo (a,h) Anthracene (53-70-3)													

FORM C For Outfalls 002/003, see Attachment C, Analytical Information for Temporary Construction Treatment System. **C**

03/09 (For Outfall 001, refer to Attachment B, Influent and Effluent Data for the Hydraulic Control Treatment System.)

FACILITY NAME: SCCC/Diamond Sites **OUTFALL NUMBER (DSN):** 002/003

10C. EFFLUENT DATA – PART C (continued)

POLLUTANT (AND CAS NUMBER IF AVAILABLE)	MARK "X"			EFFLUENT							INTAKE (Optional)		
	testing required	believed present	believed absent	Daily Maximum conc.	Daily Maximum loading	Monthly Average conc.	Monthly Average loading	# of samples	Units conc.	Units loading	Average conc.	Average loading	# of samples
ORGANIC TOXIC POLLUTANTS – BASE/NEUTRAL COMPOUNDS (continued)													
1,2-Dichlorobenzene (95-50-1)													
1,3-Dichlorobenzene (541-73-1)													
1,4-Dichlorobenzene (106-46-7)													
3,3 –Dichlorobenzidine (91-94-1)													
Diethyl Phthalate (84-66-2)													
Dimethyl Phthalate (131-11-3)													
Di-N-Butyl Phthalate (84-74-2)													
2,4-Dinitrotoluene (121-14-2)													
2,6-Dinitrotoluene (606-20-2)													
Di-N-Octyl Phthalate (117-84-0)													
1,2-Diphenylhydrazine (122-66-7)													
Fluoranthene (206-44-0)													
Fluorene (86-73-7)													
Hexachlorobenzene (118-74-1)													
Hexachlorobutadiene (87-68-3)													
Hexachlorocyclopentadiene (77-47-4)													
Hexachloroethane ((67-72-1)													
Indeno (1,2,3-cd) Pyrene (193-39-5)													
Isophorone (78-59-1)													

FORM C For Outfalls 002/003, see Attachment C, Analytical Information for Temporary Construction Treatment System. **C**

03/09 (For Outfall 001, refer to Attachment B, Influent and Effluent Data for the Hydraulic Control Treatment System.)

FACILITY NAME: SCCC/Diamond Sites **OUTFALL NUMBER (DSN):** 002/003

10C. EFFLUENT DATA – PART C (continued)

POLLUTANT (AND CAS NUMBER IF AVAILABLE)	MARK "X"			EFFLUENT							INTAKE (Optional)		
	testing required	believed present	believed absent	Daily Maximum conc.	Daily Maximum loading	Monthly Average conc.	Monthly Average loading	# of samples	Units conc.	Units loading	Average conc.	Average loading	# of samples
ORGANIC TOXIC POLLUTANTS – BASE/NEUTRAL COMPOUNDS (continued)													
Naphthalene (91-20-3)													
Nitrobenzene (98-95-3)													
N-Nitrosodimethylamine (62-75-9)													
N-Nitrosodi-N-Propylamine (621-64-7)													
N-Nitrosodiphenylamine (86-30-6)													
Phenanthrene (85-01-8)													
Pyrene (129-00-0)													
1,2,4-Trichlorobenzene (120-82-1)													
ORGANIC TOXIC POLLUTANTS – PESTICIDES													
Aldrin (309-00-2)													
Alpha-BHC (319-84-6)													
Beta-BHC (319-85-7)													
Gamma-BHC (58-89-9)													
Delta-BHC (319-86-8)													
Chlordane (57-74-9)													
4,4'-DDT (50-29-3)													
4,4'-DDE (72-55-9)													
4,4'-DDD (72-54-8)													
Dieldrin (60-57-1)													

FORM C For Outfalls 002/003, see Attachment C, Analytical Information for Temporary Construction Treatment System. **C**

03/09 (For Outfall 001, refer to Attachment B, Influent and Effluent Data for the Hydraulic Control Treatment System.)

FACILITY NAME: SCCC/Diamond Sites **OUTFALL NUMBER (DSN):** 002/003

10C. EFFLUENT DATA – PART C (continued)

POLLUTANT (AND CAS NUMBER IF AVAILABLE)	MARK "X"			EFFLUENT							INTAKE (Optional)		
	testing required	believed present	believed absent	Daily Maximum Conc.	Daily Maximum loading	Monthly Average conc.	Monthly Average loading	# of samples	Units conc.	Units loading	Average conc.	Average loading	# of samples
ORGANIC TOXIC POLLUTANTS – PESTICIDES (continued)													
Alpha-Endosulfan (115-29-7)													
Beta-Endosulfan (115-29-7)													
Endosulfan sulfate (1031-07-8)													
Endrin (72-20-8)													
Endrin Aldehyde (7421-93-4)													
Heptachlor (76-44-8)													
Heptachlor Epoxide (1024-57-3)													
PCB-1242 (53469-21-9)													
PCB-1254 (11097-69-1)													
PCB-1221 (11104-28-2)													
PCB-1232 (11141-16-5)													
PCB-1248 (12672-29-6)													
PCB-1260 (11096-82-5)													
PCB-1016 (12674-11-2)													
Toxaphene (8001-35-2)													

FORM C
03/09

C

FACILITY NAME: SCCC/Diamond Sites

10D. EFFLUENT DATA - PART D

Use the space below to list each of the pollutants listed in Table 3 of the instructions and each biocide, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your posession.

POLLUTANT	SOURCE
NA	

11. TOXIC POLLUTANTS USED OR MANUFACTURED

Identify below if any toxic pollutant listed in item 10C or Table 3 is a substance or a component which you currently use or manufacture as an intermediate or final product or byproduct.

NA	

12. BIOLOGICAL TOXICITY TESTING DATA

Is this application for an individual NJPDES/DSW permit?

☐ YES (Complete Below) ☒ NO (Go to Item 13)

DATE OF TOXICITY TEST	TYPE OF TOXICITY TEST	RESULT OF TEST

13. CERTIFIED LABORATORY

Complete the table below for all analyses reported in this application.

NAME OF CERTIFIED LAB.	TELEPHONE #	CERTIFICATION NUMBER	POLLUTANT(S)/CATEGORIES ANALYZED
TestAmerica			VOCs, SVOCs, Pesticides/PCBs,
Edison, NJ	732-549-3900	NJ12028	Metals, Wet Chemistry
Pittsburgh, PA	412-963-7058	PA005	
N.Canton, OH	330-497-9396	OH001	
Knoxville, TN	865-291-3000	TN001	

14. CERTIFICATION BY THE APPLICANT

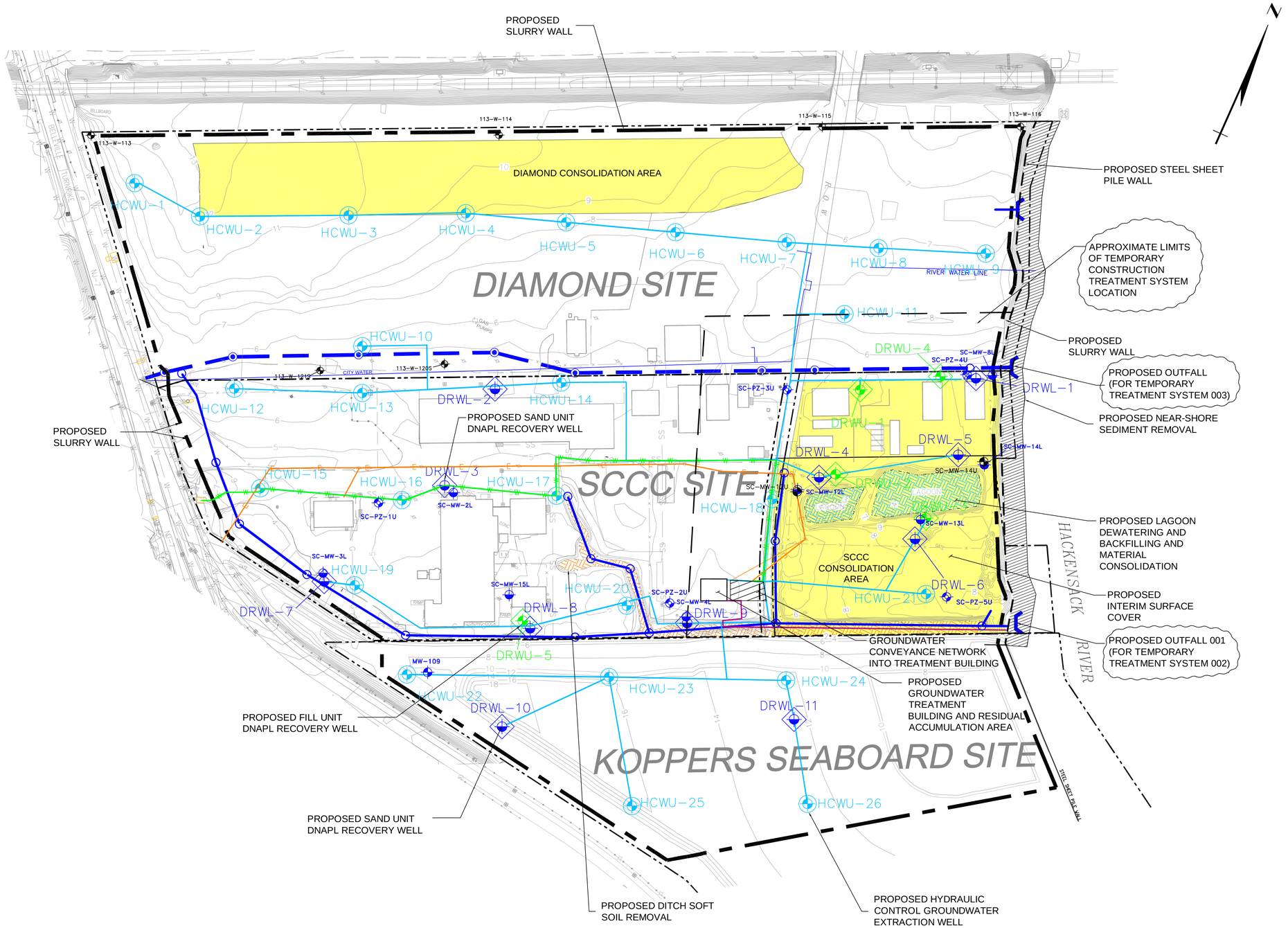
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for purposely, knowingly, recklessly, or negligently submitting false information."

NAME (TYPE OR PRINT)	TITLE (TYPE OR PRINT)	
Margaret W. Kelly (Standard Chlorine Chemical Co.)	Vice President/General Counsel	
SIGNATURE: Margaret W. Kelly	DATE: 10/13/09	PHONE: 201-997-1700
NAME (TYPE OR PRINT)	TITLE (TYPE OR PRINT)	
David Rabbe (Tierra Solutions, Inc.)	President	
SIGNATURE: D. Rabbe	DATE: 10/12/09	PHONE: 732-247-3400

Form C - attachment A

Form C – Item 3

- **Figure 1**.....**Facility Diagram**
- **Figure 2**.....**Line Drawing - Hydraulic Control Treatment System**
- **Figure 3**.....**Line Drawing – Temporary Construction Treatment System**
- **Figure 4**.....**USGS Map**



LEGEND

- EXISTING ACCESS ROAD
- EXISTING NEW JERSEY TRANSIT RAILROAD (ACTIVE)
- EXISTING FENCE
- EXISTING STRUCTURES
- EXISTING UTILITY POLES
- EXISTING LIGHT STANDARD
- STORM — EXISTING STORM DRAIN
- SS — EXISTING STORM SEWER
- G — G — EXISTING GAS LINE
- PROPERTY BOUNDARY
- EXISTING CONCRETE PAD
- EXISTING GROUND SURFACE ELEVATION CONTOURS
- EXISTING VEGETATION
- EXISTING STREAM, POND AND RIVER BANK
- EXISTING ELEVATION (FEET–MSL)
- PROPOSED SLURRY WALL LOCATION
- PROPOSED STEEL SHEET PILE WALL LOCATION
- PROPOSED GROUNDWATER CONVEYANCE PIPING TRENCH ALIGNMENT
- PROPOSED FILL UNIT GROUNDWATER EXTRACTION (HYDRAULIC CONTROL) WELL LOCATION
- PROPOSED FILL UNIT DNAPL RECOVERY WELL LOCATION
- PROPOSED SAND UNIT DNAPL RECOVERY WELL LOCATION
- PROPOSED LAGOON DEWATERING AND BACKFILLING
- PROPOSED NEAR–SHORE SEDIMENT REMOVAL
- PROPOSED DRAINAGE DITCH REMEDIATION (EXCAVATION AND BACKFILL)
- PROPOSED INTERIM SURFACE COVER
- PROPOSED TREATED WATER PERMITTED DISCHARGE
- EXISTING STORM DRAIN (48" PIPE)
- PROPOSED CULVERT(S)
- EXISTING DROP INLET
- PROPOSED DROP INLET
- PROPOSED CULVERT OUTFALL
- E — PROPOSED POWER AND PHONE LINES (OVERHEAD)
- W — PROPOSED WATER LINE TO TREATMENT BUILDING

0 120 240 FEET

REV #	DATE	DESCRIPTION	APPD
1			
2			
3			

REFERENCE: EXISTING GROUND SURFACE CONTOURS PER AIR SURVEY, DULLES, VIRGINIA, APRIL 14, 2001. HORIZONTAL REFERENCE: NEW JERSEY STATE PLANE COORDINATES (NAD 1927). VERTICAL REFERENCE: NATIONAL GEODETIC VERTICAL DATUM (NGVD 1929).

ISSUE DATE:

KEY ENVIRONMENTAL, INC.
200 THIRD AVENUE
CARNEGIE, PA 15106

SCCC, INC. AND TIERRA SOLUTIONS INC.

DRWN: SCC	DATE: 08/24/09
CHKD: JAB	DATE: 08/24/09
APPD: PWS	DATE: 08/24/09
SCALE:	1"= 2000'

KEY ENVIRONMENTAL INCORPORATED

DISCHARGE TO SURFACE WATER PERMIT APPLICATION
CATEGORY BGR – GENERAL REMEDIATION
DISCHARGE PERMIT AUTHORIZATION
SCCC INC. AND DIAMOND SITES
KEARNY, NEW JERSEY

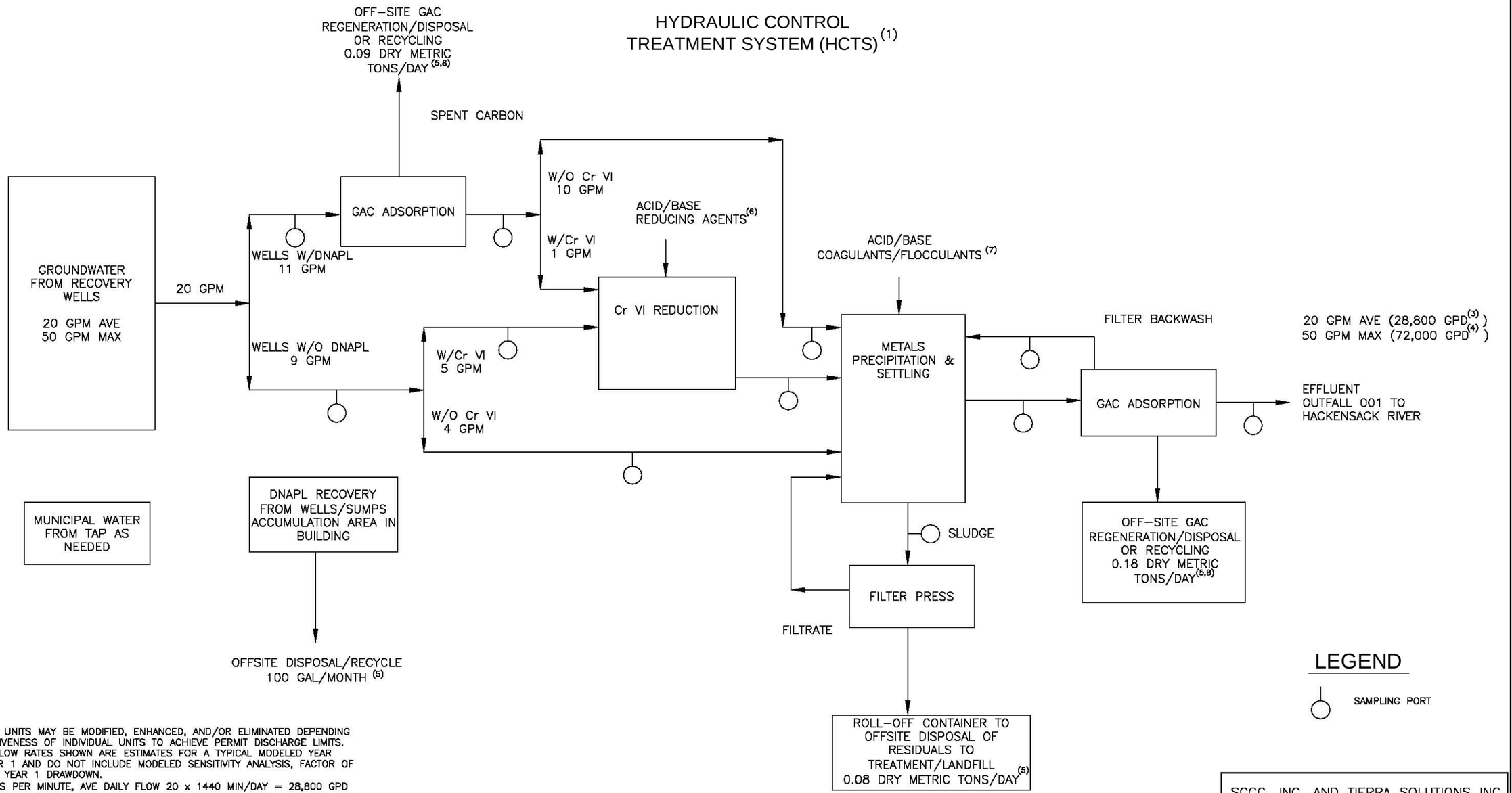
FACILITY DIAGRAM

PROJECT NO: 09–803/804

FIGURE 1

y:\00civil\kearny\ira design\production drawings\discharge to surface water permit application\figure 1 – facility diagram.dwg Last Saved By: Scomer 10/8/2009 1:53 PM Plotted By: Shelly Comer 10/8/2009 1:54 PM Scale: 1:1

HYDRAULIC CONTROL TREATMENT SYSTEM (HCTS) (1)



LEGEND

SAMPLING PORT

NOTES:

1. TREATMENT UNITS MAY BE MODIFIED, ENHANCED, AND/OR ELIMINATED DEPENDING ON EFFECTIVENESS OF INDIVIDUAL UNITS TO ACHIEVE PERMIT DISCHARGE LIMITS.
2. AVERAGE FLOW RATES SHOWN ARE ESTIMATES FOR A TYPICAL MODELED YEAR AFTER YEAR 1 AND DO NOT INCLUDE MODELED SENSITIVITY ANALYSIS, FACTOR OF SAFETY OR YEAR 1 DRAWDOWN.
3. 20 GALLONS PER MINUTE, AVE DAILY FLOW 20 x 1440 MIN/DAY = 28,800 GPD
4. 50 GALLONS PER MINUTE, MAX DAILY FLOW 50 x 1440 MIN/DAY = 72,000 GPD
5. RESIDUALS – ESTIMATED AMOUNTS, ACTUAL QUANTITIES MAY VARY. RESIDUALS WILL BE HANDLED AS NON–HAZARDOUS OR HAZARDOUS WASTE, DEPENDING ON CHARACTERIZATION RESULTS.
6. FERROUS SULFATE AND SODIUM SULFIDE ADDED TO REDUCE CHROMIUM FROM THE HEXAVALENT TO TRIVALENT FORM.
7. CATIONIC AND ANIONIC POLYMERS, AND/OR FLOCCULATION AID, SUCH AS FERRIC CHLORIDE, FOR COAGULATION AND FLOCCULATION.
8. GAC TRANSPORTED OFFSITE FOR RECYCLE, REGENERATION OR DISPOSAL.

GPM = GALLONS PER MINUTE
GPD = GALLONS PER DAY
GAC = GRANULAR ACTIVATED CARBON
DNAPL = DENSE NON–AQUEOUS PHASE LIQUID
Cr VI = HEXAVALENT CHROMIUM

REV #	DATE	DESCRIPTION	APPD
1			
2			
3			

REFERENCE:

ISSUE DATE:

KEY ENVIRONMENTAL, INC.
200 THIRD AVENUE
CARNEGIE, PA 15106

SCCC, INC. AND TIERRA SOLUTIONS INC.

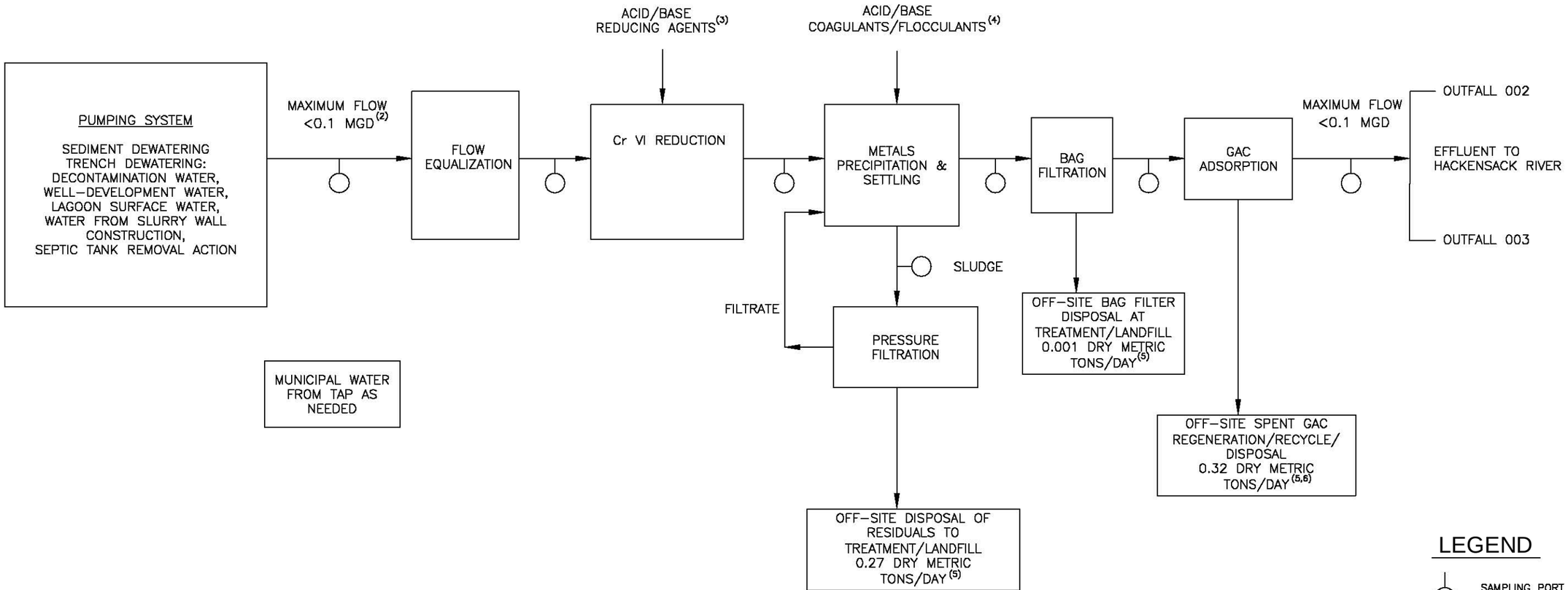
DRWN: SCC	DATE: 08/24/09	KEY ENVIRONMENTAL INCORPORATED	
CHKD: JAB	DATE: 08/24/09		
APPD: PWS	DATE: 08/24/09		
SCALE: AS SHOWN			

DISCHARGE TO SURFACE WATER PERMIT APPLICATION
CATEGORY BGR – GENERAL REMEDIATION
DISCHARGE PERMIT AUTHORIZATION
SCCC INC. AND DIAMOND SITES
KEARNY, NEW JERSEY

LINE DRAWING
HYDRAULIC CONTROL
TREATMENT SYSTEM

PROJECT NO09–803/804
FIGURE 2

TEMPORARY CONSTRUCTION TREATMENT SYSTEM (TCTS)[1]



NOTES:

1. TREATMENT UNITS MAY BE MODIFIED, ENHANCED, AND/OR ELIMINATED DEPENDING ON EFFECTIVENESS OF INDIVIDUAL UNITS TO ACHIEVE PERMIT DISCHARGE LIMITS.
2. MAXIMUM DAILY FLOW LESS THAN 0.1 MGD.
3. FERROUS SULFATE AND SODIUM SULFIDE ADDED TO REDUCE CHROMIUM FROM THE HEXAVALENT TO TRIVALENT FORM.
4. CATIONIC AND ANIONIC POLYMERS, AND/OR FLOCCULATION AID, SUCH AS FERRIC CHLORIDE, FOR COAGULATION AND FLOCCULATION.
5. RESIDUAL–ESTIMATED AMOUNT, ACTUAL QUANTITIES MAY VARY. RESIDUALS WILL BE HANDLED AS NON–HAZARDOUS OR HAZARDOUS WASTE, DEPENDING ON CHARACTERIZATION RESULTS.
6. GAC TRANSPORTED OFFSITE FOR RECYCLE, REGENERATION OR DISPOSAL

GPM = GALLONS PER MINUTE
GPD = GALLONS PER DAY
GAC = GRANULAR ACTIVATED CARBON
DNAPL = DENSE NON–AQUEOUS PHASE LIQUID
Cr VI = HEXAVALENT CHROMIUM

REV #	DATE	DESCRIPTION	APPD
1			
2			
3			

REFERENCE:

ISSUE DATE:

KEY ENVIRONMENTAL, INC.
200 THIRD AVENUE
CARNEGIE, PA 15106

SCCC, INC. AND TIERRA SOLUTIONS INC.

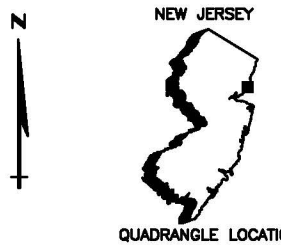
DRWN: SCC	DATE: 08/24/09	KEY ENVIRONMENTAL INCORPORATED
CHKD: JAB	DATE: 08/24/09	
APPD: PWS	DATE: 08/24/09	
SCALE: AS SHOWN		

DISCHARGE TO SURFACE WATER PERMIT APPLICATION
CATEGORY BGR – GENERAL REMEDIATION
DISCHARGE PERMIT AUTHORIZATION
SCCC INC. AND DIAMOND SITES
KEARNY, NEW JERSEY

LINE DRAWING
TEMPORARY CONSTRUCTION
TREATMENT SYSTEM

PROJECT NO: 09–803/804

FIGURE 3



REFERENCE: USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLES OF JERSEY CITY, AND WEEHAWKEN, NEW JERSEY

ISSUE DATE:

KEY ENVIRONMENTAL, INC.
200 THIRD AVENUE
CARNEGIE, PA 15106

SCCC, INC. AND TIERRA SOLUTIONS INC.

DRWN: GLC	DATE: 08/24/09
CHKD: RJH	DATE: 08/24/09
APPD: JSZ	DATE: 08/24/09
SCALE:	1"= 2000'

KEY ENVIRONMENTAL INCORPORATED

DISCHARGE TO SURFACE WATER PERMIT APPLICATION
CATEGORY BGR – GENERAL REMEDIATION
DISCHARGE PERMIT AUTHORIZATION
SCCC INC. AND DIAMOND SITES
KEARNY, NEW JERSEY

USGS MAP

PROJECT NO: 09-803/804

FIGURE 4

y:\00civil\kearny\ira design\production drawings\discharge to surface water permit application\figure 4 – usgs map.dwg Last Saved By: Scanner 9/30/2009 5:44 PM Plotted By: Shelly Corner 9/30/2009 5:46 PM Scale: 1:1

Form C - attachment B

Form C - Item 10
Influent and Effluent Data for the Hydraulic Control Treatment System, Outfall 001

- **Figure B-1**…… **Monitoring Well Locations**
- **Table B-1**…….. **Summary of Representative Influent and Effluent Data**

Influent and Effluent Data for the Hydraulic Control Treatment System, Outfall 001

Treatability Testing was performed in order to obtain representative influent and effluent data for the proposed Hydraulic Control Treatment System (HCTS). Samples were collected from twenty-four (24) groundwater monitoring wells from the SCCC, Diamond, and Seaboard sites. The monitoring well identification numbers are listed in Table 1 below, and the well locations are shown in ***Attachment B Figure B-1: Monitoring Well Locations.***

TABLE 1 – MONITORING WELLS SAMPLED FOR TREATBILITY TESTING

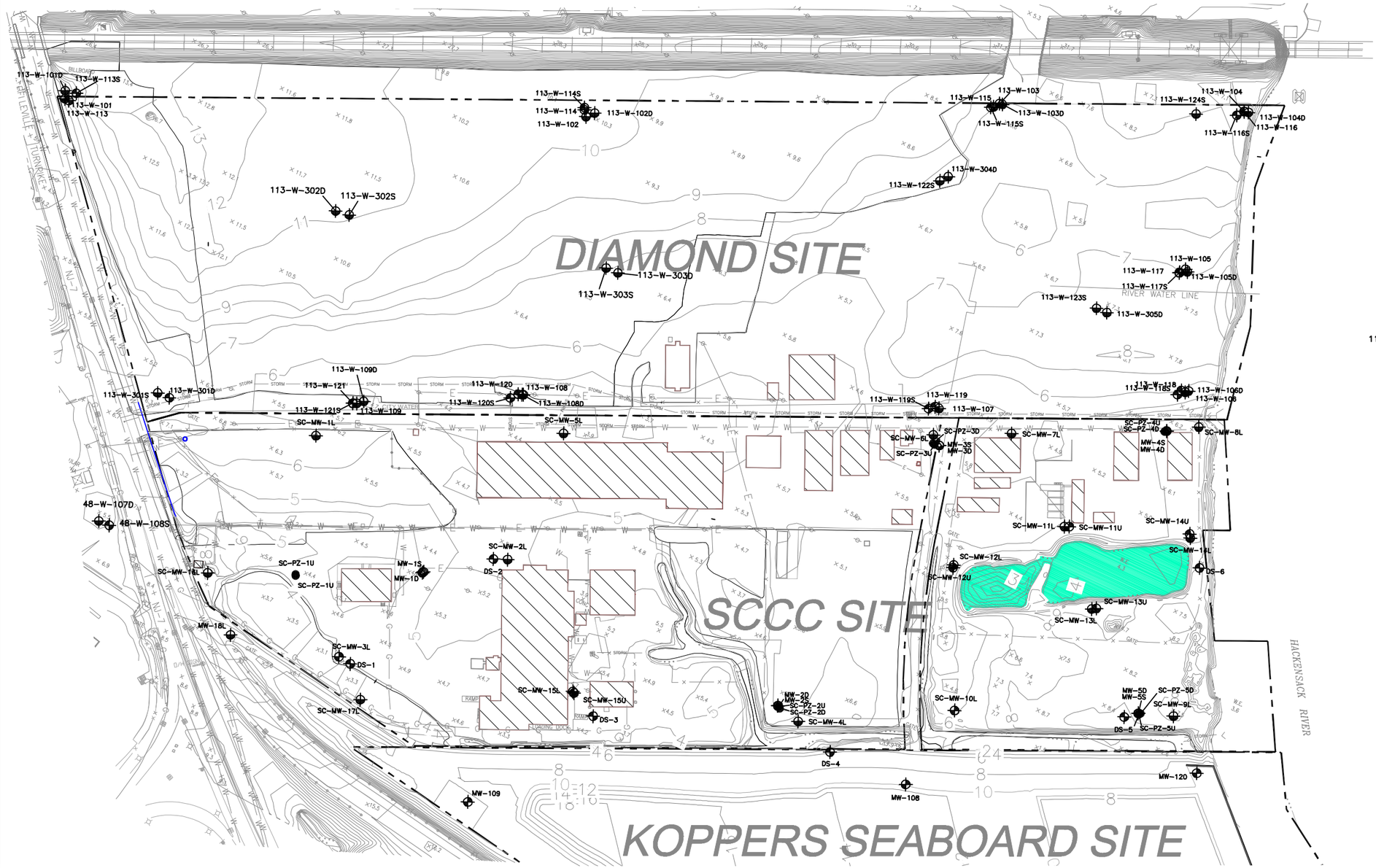
113-W-113	113-W-114	113-W-115	113-W-116
113-W-120S	113-W-121S	SC-PZ-1U	SC-PZ-2U
SC-PZ-3U	SC-PZ-4U	SC-PZ-5U	SC-MW-12U
SC-MW-14U	SC-MW-15U	SC-MW-11U	SC-MW-2L
SC-MW-3L	SC-MW-4L	SC-MW-8L	SC-MW-12L
SC-MW-13L	SC-MW-14L	SC-MW-15L	MW-109

The samples were composited to form a typical influent for evaluation. The typical influent sample, referred to as a Well Mix, is representative of typical influent to the HCTS. The Well Mix was analyzed for VOCs, SVOCs, Pesticides, PCBs, Metals, and Wet Chemistry. The Well Mix typical influent data is summarized in ***Attachment B, Table B-1: Summary of Representative Influent and Effluent Data***.

Bench-scale treatability testing was performed on the Well Mix that included chrome reduction, metals precipitation and settling, and Granular Activated Carbon (GAC) adsorption. The treatability testing utilized unit operations that are proposed for the full-scale HCTS, as shown in ***Attachment A Figure 2: Line Diagram - Hydraulic Control Treatment System***.

The analytical results for the treatability test are shown in ***Attachment B Table B-1: Summary of Representative Influent and Effluent Data***. The data shown in this table is believed to be representative of the expected influent and effluent for the HCTS. The influent may vary depending on well pumping rates.

Attachment A Figure 1: Facility Diagram identifies the location of Outfall 001, where treated HCTS effluent is proposed to be discharged.



LEGEND

- EAST AND WEST LAGOONS
- EXISTING BUILDING
- 113-W-118S 113-W-118 — SHALLOW GROUNDWATER MONITORING WELL
- 113-W-106D — DEEP GROUNDWATER MONITORING WELL
- PIEZOMETER LOCATION
- PROPERTY BOUNDARY
- EXISTING UTILITY POLES
- EXISTING LIGHT STANDARD
- E — EXISTING OVERHEAD POWER LINE
- W — W — EXISTING WATER LINES
- G — G — EXISTING GAS LINES
- STORM — EXISTING STORM DRAIN

0 200 400 FEET

SCCC, INC. AND TIERRA SOLUTIONS INC.

DRWN: SCC	DATE: 08/24/09	KEY ENVIRONMENTAL INCORPORATED	
CHKD: JAB	DATE: 08/24/09		
APPD: PWS	DATE: 08/24/09		
SCALE: AS SHOWN			

DISCHARGE TO SURFACE WATER PERMIT APPLICATION
CATEGORY BGR – GENERAL REMEDIATION
DISCHARGE PERMIT AUTHORIZATION
SCCC INC. AND DIAMOND SITES
KEARNY, NEW JERSEY

MONITORING WELL LOCATIONS

PROJECT NO: 09-803/804

FIGURE B-1

REV #	DATE	DESCRIPTION	APPD
1			
2			
3			

REFERENCE: EXISTING GROUND SURFACE CONTOURS PER AIR SURVEY, DULLES, VIRGINIA, APRIL 14, 2001. HORIZONTAL REFERENCE: NEW JERSEY STATE PLANE COORDINATES (NAD 1927). VERTICAL REFERENCE: NATIONAL GEODETIC VERTICAL DATUM (NGVD 1929).

ISSUE DATE:

KEY ENVIRONMENTAL, INC.
200 THIRD AVENUE
CARNEGIE, PA 15106

TABLE B-1
Form C, Item 10
SUMMARY OF REPRESENTATIVE INFLUENT AND EFFLUENT DATA*
SCCC AND DIAMOND SITES
KEARNY, NEW JERSEY

	WELL MIX TYPICAL INFLUENT ug/L		TREATMENT TYPICAL EFFLUENT ug/l	
PARAMETER/COMPOUND				
VOLATILE COMPOUNDS (GC/MS)				
Chloromethane	4.4	U	0.4	U
Bromomethane	4.4	U	0.4	U
VinylChloride	2.4	U	0.2	U
Chloroethane	4.3	U	0.4	U
MethyleneChloride	66		7.0	
1,1-Dichloroethene	4.6	U	0.5	U
1,1-Dichloroethane	2.6	U	0.3	U
trans-1,2-Dichloroethene	3.9	U	0.4	U
Chloroform	2.0	U	0.2	U
1,2-Dichloroethane	2.7	U	0.3	U
1,1,1-Trichloroethane	3.8	U	0.4	U
CarbonTetrachloride	3.4	U	0.3	U
Bromodichloromethane	2.5	U	0.2	U
1,2-Dichloropropane	4.9	U	0.5	U
cis-1,3-Dichloropropene	1.3	U	0.1	U
Trichloroethene	36		0.5	
Dibromochloromethane	2.7	U	0.3	U
1,1,2-Trichloroethane	2.2	U	0.2	U
Benzene	*36*		0.7	
trans-1,3-Dichloropropene	1.6	U	0.2	U
2-ChloroethylVinylEther	2.5	U	0.2	U
Bromoform	2.1	U	0.2	U
Tetrachloroethene	7.1		0.4	U
1,1,2,2-Tetrachloroethane	3.5	U	0.4	U
Toluene	*23*		0.3	U
Chlorobenzene	230		2.2	
Ethylbenzene	7.5		0.4	U
Acrolein	66	U	6.6	U
Acrylonitrile	31	U	3.1	U

TABLE B-1
Form C, Item 10
SUMMARY OF REPRESENTATIVE INFLUENT AND EFFLUENT DATA*
SCCC AND DIAMOND SITES
KEARNY, NEW JERSEY

	WELL MIX TYPICAL INFLUENT ug/L		TREATMENT TYPICAL EFFLUENT ug/l	
PARAMETER/COMPOUND				
SEMIVOLATILE COMPOUNDS (GC/MS)				
Phenol	3700		0.7	U
2-Chlorophenol	25	U	1.2	U
2-Nitrophenol	37	U	1.7	U
2,4-Dimethylphenol	120		4.2	
2,4-Dichlorophenol	34	U	1.5	U
4-Chloro-3-methylphenol	38	U	1.8	U
2,4,6-Trichlorophenol	51	U	2.3	U
2,4-Dinitrophenol	21	U	1.0	U
4-Nitrophenol	20	U	1.3	U
4,6-Dinitro-2-methylphenol	29	U		NR
Pentachlorophenol	49	U	2.2	U
N-Nitrosodimethylamine	17	U		NR
bis(2-Chloroethyl)ether	20	U	0.9	U
1,3-Dichlorobenzene	790		1.5	
1,4-Dichlorobenzene	1400		2.7	
1,2-Dichlorobenzene	1600		3.7	
bis(2-chloroisopropyl)ether	20	U	0.9	U
N-Nitroso-di-n-propylamine	17	U	0.8	U
Hexachloroethane	21	U	1.0	U
Nitrobenzene	22	U	1.0	U
Isophorone	22	U	1.0	U
bis(2-Chloroethoxy)methane	20	U	0.9	U
1,2,4-Trichlorobenzene	160		1.0	U
Naphthalene	4.9	U	0.2	U
Hexachlorobutadiene	14	U	0.6	U
Hexachlorocyclopentadiene	15	U	0.7	U
2-Chloronaphthalene	25	U	1.2	U
Dimethylphthalate	26	U	1.2	U
Acenaphthylene	2.8	U	0.1	U
2,6-Dinitrotoluene	30	U	1.4	U
Acenaphthene	9.8		0.1	U
2,4-Dinitrotoluene	27	U	1.2	U
Diethylphthalate	18	U	0.8	U

TABLE B-1
Form C, Item 10
SUMMARY OF REPRESENTATIVE INFLUENT AND EFFLUENT DATA*
SCCC AND DIAMOND SITES
KEARNY, NEW JERSEY

	WELL MIX TYPICAL INFLUENT ug/L		TREATMENT TYPICAL EFFLUENT ug/l	
PARAMETER/COMPOUND				
4-Chlorophenyl-phenylether	25	U	1.1	U
Fluorene	3.8	U	0.2	U
N-Nitrosodiphenylamine	25	U	1.1	U
4-Bromophenyl-phenylether	28	U	1.3	U
Hexachlorobenzene	7.5	U	0.3	U
Phenanthrene	1.9	U	0.086	U
Anthracene	2.8	U	0.1	U
Di-n-butylphthalate	24	U	1.1	U
Fluoranthene	3.0	U	0.1	U
Pyrene	3.0	U	0.1	U
Benzidine	170	U		NR
Butylbenzylphthalate	25	U	1.2	
3,3'-Dichlorobenzidine	120	U	5.3	U
Benzo(a)anthracene	1.2	U	0.054	U
Chrysene	4.5	U	0.2	U
bis(2-Ethylhexyl)phthalate	24	U	1.1	U
Di-n-octylphthalate	24	U	1.1	U
Benzo(b)fluoranthene	3.0	U	0.1	U
Benzo(k)fluoranthene	2.1	U	0.097	U
Benzo(a)pyrene	1.4	U	0.064	U
Indeno(1,2,3-cd)pyrene	1.9	U	0.086	U
Dibenzo(a,h)anthracene	2.4	U	0.1	U
Benzo(g,h,i)perylene	2.1	U	0.097	U
1,2-Diphenylhydrazine	22	U		NR
2-Methylphenol		NR	2.3	
4-Methylphenol		NR	1.2	U
2,4,5-Trichlorophenol		NR	1.3	U
4-Nitrophenol		NR	0.9	U
4-Chloroaniline		NR	0.7	U
2-Methylnaphthalene		NR	1.2	U
2-Nitroaniline		NR	0.7	U
3-Nitroaniline		NR	1.1	U
Dibenzofuran		NR	1.0	U
4-Nitroaniline		NR	0.7	U
Carbazole		NR	1.0	U

TABLE B-1
Form C, Item 10
SUMMARY OF REPRESENTATIVE INFLUENT AND EFFLUENT DATA*
SCCC AND DIAMOND SITES
KEARNY, NEW JERSEY

PARAMETER/COMPOUND	WELL MIX TYPICAL INFLUENT ug/L		TREATMENT TYPICAL EFFLUENT ug/l	
PESTICIDES/PCBs				
Aldrin	0.010	U	0.010	U
alpha-BHC	0.010	U	0.010	U
beta-BHC	0.010	U	0.010	U
delta-BHC	0.010	U	0.010	U
gamma-BHC(Lindane)	0.010	U	0.010	U
Chlordane	0.18	U	0.18	U
4,4'-DDD	0.010	U	0.010	U
4,4'-DDE	0.010	U	0.010	U
4,4'-DDT	0.010	U	0.010	U
Dieldrin	0.010	U	0.010	U
EndosulfanI	0.041	U	0.010	U
EndosulfanII	0.010	U	0.010	U
Endosulfan sulfate	0.010	U	0.010	U
Endrin	0.097	U	0.010	U
Endrin aldehyde	0.010	U	0.010	U
Endrinketone	0.030	U	0.030	U
Heptachlor	0.010	U	0.010	U
Heptachlorepoxide	0.010	U	0.010	U
Methoxychlor	0.010	U	0.010	U
Toxaphene	0.31	U	0.31	U
Aroclor-1016	0.23	U	0.23	U
Aroclor-1221	0.36	U	0.36	U
Aroclor-1232	0.26	U	0.26	U
Aroclor-1242	0.21	U	0.21	U
Aroclor-1248	0.36	U	0.36	U
Aroclor-1254	0.34	U	0.34	U
Aroclor-1260	0.20	U	0.20	U
Aroclor-1262	0.18	U	0.18	U
Aroclor-1268	0.18	U	0.18	U

TABLE B-1
Form C, Item 10
SUMMARY OF REPRESENTATIVE INFLUENT AND EFFLUENT DATA*
SCCC AND DIAMOND SITES
KEARNY, NEW JERSEY

PARAMETER/COMPOUND	WELL MIX TYPICAL INFLUENT ug/L		TREATMENT TYPICAL EFFLUENT ug/l	
METALS				
Aluminum	24100		77.6	B
Antimony	5.8	U	5.8	U
Arsenic	32.7		3.2	U
Barium	296		67.1	B
Beryllium	1.3	B	0.3	U
Cadmium	0.40	U	0.4	U
Chromium	4760		5.7	B
Cobalt	10.2	B	1.8	B
Copper	17.3	B	3.7	U
Iron	29100		947	
Lead	49.7		2.7	U
Magnesium	34200		39600	
Manganese	716		501	U
Mercury	0.36		0.1	U
Nickel	104		28.3	B
Selenium	4.2	U	4.2	U
Silver	1.4	U	1.4	U
Thallium	4.7	U	4.7	U
Zinc	186		5.8	U
Molybdenum	5.1	B	4.4	U
Tin	8.1	B	4.7	U
Titanium	469		3.9	U
Boron	144		123	

TABLE B-1
Form C, Item 10
SUMMARY OF REPRESENTATIVE INFLUENT AND EFFLUENT DATA*
SCCC AND DIAMOND SITES
KEARNY, NEW JERSEY

	WELL MIX TYPICAL INFLUENT ug/L		TREATMENT TYPICAL EFFLUENT ug/l	
PARAMETER/COMPOUND				
DIOXIN	**See Units**		**See Units**	
2,3,7,8-TCDD - pg/L	88		6.0	U
WET CHEMISTRY	**See Units**		**See Units**	
Ammonia as Nitrogen - mg/ l	6.2		5.6	
BOD - mg/l	158		5.0	U
Chlorine Res. - mg/l	0.2	U	0.2	U
Chromium VI(7196A) - ug/l	582		10	U
COD - mg/l	1350		130	
Free Cyanide - mg/l	0.015		0.019	
Nitrate as Nitrogen - mg/l	0.31		0.22	
Nitrite as Nitrogen - mg/l	0.26		0.2	
pH - std units	8.53		8.9	
Sulfate - mg/l	655		843	
Sulfide - mg/l	1.0	U	13.1	U
Sulfite - mg/l	5.0	U	5	U
Total Cyanide - mg/l	0.011		0.01	U
Total Dissolved Solids - mg/l	2460		3170	
Total Organic Carbon - mg/l	358		33.8	
Total Phenols - mg/l	0.64			NR
Total Phosphorus - mg/l	0.75		0.03	U
Total Suspended Solids - mg/l	700		10	U
Bromide - mg/l	0.89			NR
Fluoride - mg/l	0.27			NR
SGT/HEM1664 - mg/l	5.0	U	5.0	U
TKN - mg/l	1.7			NR

Qualifiers:

U - The compound was not detected at the indicated concentration.
NR - Not Analyzed
N/L - No Limit

*Notes:

The influent well mix was collected from 24 monitoring wells at the SCCC, Diamond, and Seaboard Sites.
The groundwater monitoring well locations are shown in Form C Attachment B Figure B-1.
The samples were composited to obtain the Well Mix to represent typical influent for this treatability study.
The data shown in this table is believed to be representative of the expected influent and effluent for the Hydraulic Control Treatment System. The influent may vary depending on well pumping rates.
The work was completed in April/May 2008.

Form C - attachment C

Form C - Item 10
Analytical Information for the Temporary Construction Treatment System, Outfalls 002/003

- **Figure C-1……** **Monitoring Well Locations**
- **Table C-1……** **Summary of Representative Influent Data from the SCCC and Diamond Sites**
- **Table C-2…….** **Summary of Representative Influent Data from the Seaboard Site**
- **Table C-3…….** **Summary of Representative Influent Data from Lagoon Water**

Analytical Information for the Temporary Construction Treatment System (TCTS)

The TCTS will treat water and groundwater from construction activities that are necessary to complete remediation projects at the SCCC, Diamond, and a portion of the adjacent Former Koppers Seaboard Sites. Examples of construction activities and sources of water and groundwater include: sediment dewatering, trench dewatering, water from slurry wall construction, decontamination water, well-development water, lagoon surface water, and septic tank removal action.

Typical influent data for the proposed TCTS was evaluated by collecting water and groundwater samples that are representative of water expected from construction activities. Samples were collected from groundwater monitoring wells on the SCCC, Diamond, and Former Koppers Seaboard Sites, and surface water from the lagoon on the SCCC Site. Monitoring well locations and the lagoons are identified in ***Attachment C Figure C-1: Well Locations.*** The groundwater and water samples were analyzed for VOCs, SVOCs, Pesticides, PCBs, Metals, and Wet Chemistry. The analytical results are summarized in the following tables:

1. ***Table C-1: Summary of Representative Influent Data SCCC and Diamond Sites***

2. ***Table C-2: Summary of Representative Influent Data from the Seaboard Site***

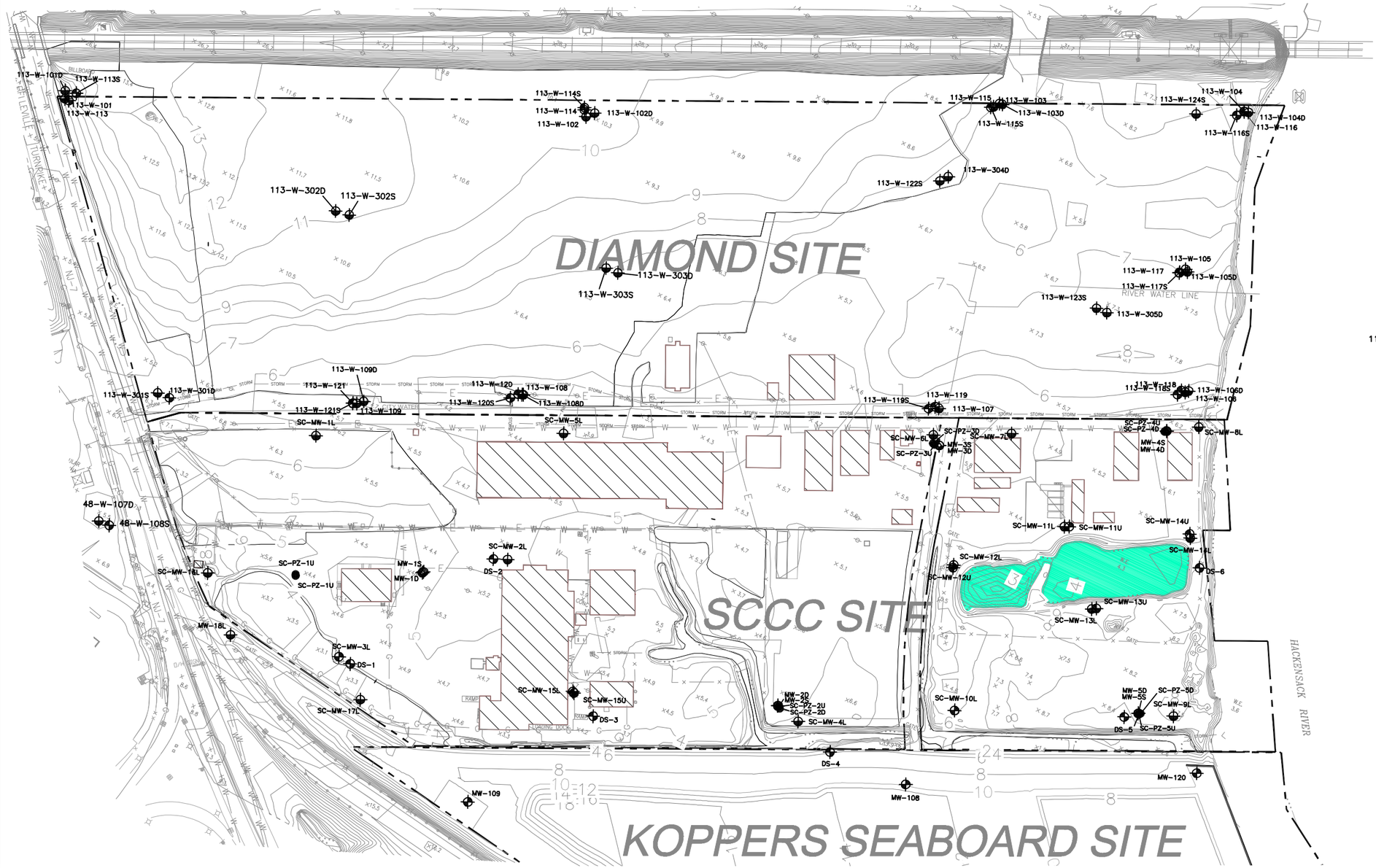
3. ***Table C-3: Summary of Representative Influent Data from Lagoon Water***.

The data reported in the tables is believed to be representative of the expected influent for the TCTS. The influent may vary depending on the well pumping rates, as well as the location and type of construction activities being performed.

The proposed TCTS is planned to be mobile and will move around the site in order to perform construction activities necessary to complete the remediation. To this end, treated TCTS effluent will be discharged at either Outfall 002 or Outfall 003, depending on the location of construction activities at the time. The proposed locations of Outfall 002 and Outfall 003 are shown in ***Attachment A Figure 2: Facility Diagram***.

A schematic of the proposed TCTS is shown in ***Attachment A Figure 2: Line Diagram - Temporary Construction Treatment System***. Because the typical TCTS influent is expected to be similar to the typical influent samples used in the treatability testing, the TCTS effluent is expected to be similar to the HCTS treatability testing effluent results (***Attachment B Table B-1: Summary of Representative Influent and Effluent Data***).

The TCTS discharge is temporary in nature, and expected to cease upon completion of site construction activities.



LEGEND

- EAST AND WEST LAGOONS
- EXISTING BUILDING
- 113-W-118S 113-W-118 — SHALLOW GROUNDWATER MONITORING WELL
- 113-W-106D — DEEP GROUNDWATER MONITORING WELL
- PIEZOMETER LOCATION
- PROPERTY BOUNDARY
- EXISTING UTILITY POLES
- EXISTING LIGHT STANDARD
- E — EXISTING OVERHEAD POWER LINE
- W — W — EXISTING WATER LINES
- G — G — EXISTING GAS LINES
- STORM — EXISTING STORM DRAIN

0 200 400 FEET

SCCC, INC. AND TIERRA SOLUTIONS INC.

DRWN: SCC	DATE: 08/24/09	KEY ENVIRONMENTAL INCORPORATED	
CHKD: JAB	DATE: 08/24/09		
APPD: PWS	DATE: 08/24/09		
SCALE: AS SHOWN			

DISCHARGE TO SURFACE WATER PERMIT APPLICATION
CATEGORY BGR – GENERAL REMEDIATION
DISCHARGE PERMIT AUTHORIZATION
SCCC INC. AND DIAMOND SITES
KEARNY, NEW JERSEY

REV #	DATE	DESCRIPTION	APPD
1			
2			
3			

REFERENCE: EXISTING GROUND SURFACE CONTOURS PER AIR SURVEY, DULLES, VIRGINIA, APRIL 14, 2001. HORIZONTAL REFERENCE: NEW JERSEY STATE PLANE COORDINATES (NAD 1927). VERTICAL REFERENCE: NATIONAL GEODETIC VERTICAL DATUM (NGVD 1929).

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200 THIRD AVENUE
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MONITORING WELL LOCATIONS

PROJECT NO: 09-803/804

FIGURE C-1

TABLE C-1
Form C - Item 10
SUMMARY OF REPRESENTATIVE INFLUENT DATA*
SCCC AND DIAMOND SITES
KEARNY, NEW JERSEY

CONSTITUENT	UNITS	113-W-113	113-W-114	113-W-115	113-W-116	SC-MW-12U	SC-MW-13L	SC-MW-15L
VOLATILE ORGANIC COMPOUNDS								
1,1,1-Trichloroethane	(ug/l)	0.79U	0.79U	0.79U	0.79U	0.79U	20U	200U
1,1,2,2-Tetrachloroethane	(ug/l)	0.63U	0.63U	0.63U	0.63U	0.63U	16U	160U
1,1,2-Trichloroethane	(ug/l)	0.79U	0.79U	0.79U	0.79U	0.79U	20U	200U
1,1,2-Trichloro-1,2,2-trifluoroethane	(ug/l)	1.2U	1.2U	1.2U	1.2U	1.2U	31U	310U
1,1-Dichloroethane	(ug/l)	1.0U	1.0U	1.0U	1.0U	1.0U	25U	250U
1,1-Dichloroethylene	(ug/l)	0.87U	0.87U	0.87U	0.87U	0.87U	22U	220U
1,2,4-Trichlorobenzene	(ug/l)	0.42U	0.42U	0.42U	0.42U	0.42U	2400	440J
1,2-Dibromoethane (EDB)	(ug/l)	0.64U	0.64U	0.64U	0.64U	0.64U	16U	160U
1,2-Dichlorobenzene	(ug/l)	0.65U	0.65U	0.65U	0.82J	4.0J	700	36000
1,2-Dichloroethane	(ug/l)	0.64U	0.64U	0.64U	0.64U	0.64U	16U	160U
1,2-Dichloropropane	(ug/l)	0.67U	0.67U	0.67U	0.67U	0.67U	17U	170U
1,3-Dichlorobenzene	(ug/l)	0.66U	0.66U	0.66U	0.66U	10	160	26000
1,4-Dichlorobenzene	(ug/l)	0.60U	0.62J	0.60U	0.60U	35	380	42000
2-Butanone	(ug/l)	7.3	0.73U	10	12	0.73U	18U	180U
2-Hexanone	(ug/l)	0.96J	0.45U	0.45U	0.45U	0.45U	11U	110U
4-Methyl-2-pentanone	(ug/l)	0.46U	0.46U	0.46U	0.46U	0.46U	12U	120U
Acetone	(ug/l)	85	51	66	160	5.0U	280J	1200U
Benzene	(ug/l)	0.81U	0.81U	0.81U	1.2J	0.81U	20U	350J
Bromodichloromethane	(ug/l)	0.58U	0.58U	0.58U	0.58U	0.58U	15U	150U
Bromoform	(ug/l)	0.37U	0.37U	0.37U	0.37U	0.37U	9.2U	92U
Bromomethane	(ug/l)	0.75U	0.75U	0.75U	0.75U	0.75U	19U	190U
Carbon disulfide	(ug/l)	1.1U	1.1U	1.1U	1.1U	1.1U	27U	270U
Carbon Tetrachloride	(ug/l)	0.91U	0.91U	0.91U	0.91U	0.91U	23U	230U
Chlorobenzene	(ug/l)	0.71U	0.71U	0.71U	0.71U	37	33J	7800
Chloroethane	(ug/l)	1.1U	1.1U	1.1U	1.1U	1.1U	28U	280U
Chloroform	(ug/l)	0.78U	0.78U	0.78U	0.78U	0.78U	19U	190U
Chloromethane	(ug/l)	0.87U	0.87U	0.87U	0.87U	0.87U	22U	220U
cis-1,2-Dichloroethylene	(ug/l)	1.0U	1.0U	1.0U	1.0U	1.0U	25U	250U
cis-1,3-Dichloropropene	(ug/l)	0.79U	0.79U	0.79U	0.79U	0.79U	20U	200U
Cyclohexane	(ug/l)	1.1U	1.1U	1.1U	1.1U	1.1U	27U	270U
Dibromochloropropane	(ug/l)	1.3U	1.3U	1.3U	1.3U	1.3U	31U	310U
Dibromochloromethane	(ug/l)	0.50U	0.50U	0.50U	0.50U	0.50U	12U	120U
Dichlorodifluoromethane	(ug/l)	1.0U	1.0U	1.0U	1.0U	1.0U	26U	260U
Ethylbenzene	(ug/l)	0.58U	0.58U	0.58U	0.58U	0.58U	15U	150U
Isopropylbenzene	(ug/l)	0.72U	0.72U	0.72U	0.72U	0.72U	18U	180U
Methyl Acetate	(ug/l)	0.47U	0.47U	0.47U	0.47U	0.47U	12U	120U
Methylcyclohexane	(ug/l)	1.1U	1.1U	1.1U	1.1U	1.1U	27U	270U
Methylene chloride	(ug/l)	0.75U	0.75U	0.75U	0.75U	0.75U	19U	190U
Methyltert-butylether	(ug/l)	0.77U	0.77U	0.77U	0.77U	0.77U	19U	190U
Styrene	(ug/l)	0.80U	0.80U	0.80U	0.80U	0.80U	20U	200U
Tetrachloroethylene	(ug/l)	0.57U	0.57U	0.57U	0.57U	0.57U	14U	140U
Toluene	(ug/l)	0.80U	0.80U	0.80U	4.5J	0.80U	20U	200U
trans-1,2-Dichloroethene	(ug/l)	0.90U	0.90U	0.90U	0.90U	0.90U	23U	230U
Trans-1,3-Dichloropropene	(ug/l)	0.57U	0.57U	0.57U	0.57U	0.57U	14U	140U
Trichloroethylene	(ug/l)	0.88U	0.88U	0.88U	0.88U	0.88U	22U	220U
Trichlorofluoromethane	(ug/l)	0.80U	0.80U	0.80U	0.80U	0.80U	20U	200U
Vinyl chloride	(ug/l)	0.94U	0.94U	0.94U	0.94U	0.94U	24U	240U
Xylene (total)	(ug/l)	2.4U	2.4U	2.4U	2.4U	2.4U	61U	610U
SEMIVOLATILE ORGANIC COMPOUNDS								
1,1'-Biphenyl	(ug/l)	0.69U	0.69U	0.69U	0.66U	1.2J	140	0.63U
2,2'-oxybis(1-chloropropane)	(ug/l)	0.30U	0.30U	0.30U	0.29U	0.30U	1.4U	0.27U
2,4,5-Trichlorophenol	(ug/l)	0.71U	0.71U	0.71U	0.69U	0.71U	3.4U	0.66U
2,4,6-Trichlorophenol	(ug/l)	0.65U	0.65U	0.65U	0.62U	0.65U	170	0.60U
2,4-Dichlorophenol	(ug/l)	0.55U	0.55U	0.55U	0.53U	1.4J	2.6U	48
2,4-Dimethylphenol	(ug/l)	0.59U	7.9J	0.59U	0.57U	12	3100J	3.9J
2,4-Dinitrophenol	(ug/l)	15U	15U	15U	14U	15U	70U	13U
2,4-Dinitrotoluene	(ug/l)	0.51U	0.51U	0.51U	0.50U	0.51U	2.5U	0.47U
2,6-Dinitrotoluene	(ug/l)	0.58U	0.58U	0.58U	0.56U	0.58U	2.8U	0.53U
2-Chloronaphthalene	(ug/l)	0.50U	0.50U	0.50U	0.49U	0.50U	2.4U	0.46U
2-Chlorophenol	(ug/l)	0.52U	0.52U	0.52U	0.50U	0.52U	2.5U	0.48U
2-Methylnaphthalene	(ug/l)	0.53U	0.66J	0.53U	0.51U	0.69J	790	0.89J
2-Methylphenol	(ug/l)	0.58U	9.7J	0.58U	1.1J	3.5J	4000J	1.4J
2-Nitroaniline	(ug/l)	0.54U	0.54U	0.54U	0.52U	0.54U	2.6U	0.50U
2-Nitrophenol	(ug/l)	0.62U	0.62U	0.62U	0.59U	0.62U	2.9U	0.57U
3,3-Dichlorobenzidine	(ug/l)	0.47U	0.47U	0.47U	0.45U	0.47U	2.2U	0.43U
3-Nitroaniline	(ug/l)	0.46U	0.46U	0.46U	0.44U	0.46U	2.2U	0.42U
4,6-Dinitro-2-methylphenol	(ug/l)	16U	16U	16U	16U	16U	77U	15U
4-Bromophenylphenyl ether	(ug/l)	0.56U	0.56U	0.56U	0.55U	0.56U	2.7U	0.52U

TABLE C-1
Form C - Item 10
SUMMARY OF REPRESENTATIVE INFLUENT DATA*
SCCC AND DIAMOND SITES
KEARNY, NEW JERSEY

CONSTITUENT	UNITS	113-W-113	113-W-114	113-W-115	113-W-116	SC-MW-12U	SC-MW-13L	SC-MW-15L
4-Chloroaniline	(ug/l)	0.53U	0.53U	0.53U	0.51U	0.53U	2.5U	0.49U
4-Chlorophenyl phenyl ether	(ug/l)	0.49U	0.49U	0.49U	0.47U	0.49U	2.3U	0.45U
4-Chloro-3-methylphenol	(ug/l)	0.67U	0.67U	0.67U	0.65U	0.67U	3.2U	0.62U
4-Methylphenol	(ug/l)	0.84U	39	10J	9.5J	16	19000	5.6J
4-Nitroaniline	(ug/l)	0.29U	0.29U	0.29U	0.28U	0.29U	1.4U	0.27U
4-Nitrophenol	(ug/l)	0.80U	0.80U	0.80U	0.77U	0.80U	3.8U	0.74U
Acenaphthene	(ug/l)	0.60U	1.6J	0.60U	0.57U	3.4J	11000U	1.0J
Acenaphthylene	(ug/l)	0.53U	0.53U	0.53U	0.51U	0.59J	78	0.49U
Acetophenone	(ug/l)	0.53U	1.2J	0.53U	2.4J	0.53U	2.5U	0.49U
Anthracene	(ug/l)	0.58U	0.58U	0.58U	0.56U	0.66J	77	0.53U
Atrazine	(ug/l)	0.44U	0.44U	0.44U	0.43U	0.44U	2.1U	0.41U
Benzaldehyde	(ug/l)	0.62U	3.2J	0.62U	0.60U	0.62U	2.9U	0.57U
Benzo(a)anthracene	(ug/l)	0.47U	0.47U	0.47U	0.45U	0.47U	2.2U	0.43U
Benzo(a)pyrene	(ug/l)	0.50U	0.50U	0.50U	0.48U	0.50U	2.4U	0.46U
Benzo(b)fluoranthene	(ug/l)	0.36U	0.36U	0.36U	0.34U	0.36U	1.7U	0.33U
Benzo(ghi)perylene	(ug/l)	0.31U	0.31U	0.31U	0.30U	0.31U	1.5U	0.29U
Benzo(k)fluoranthene	(ug/l)	0.45U	0.45U	0.45U	0.43U	0.45U	2.1U	0.41U
Bis(2-chloroethoxy)methane	(ug/l)	1.4U	1.4U	1.4U	1.3U	1.4U	6.6U	1.3U
Bis(2-chloroethyl)ether	(ug/l)	0.52U	0.52U	0.52U	0.51U	0.52U	2.5U	0.48U
Bis(2-ethylhexyl)phthalate	(ug/l)	1.4U	2.2J	2.4J	3.0J	1.5J	6.5U	1.8J
Butyl benzyl phthalate	(ug/l)	1.6U	1.6U	1.6U	1.5U	1.6U	7.5U	2.5J
Caprolactam	(ug/l)	2.4J	6.8J	2.1U	13	3.8J	10U	5.1J
Carbazole	(ug/l)	0.60U	0.60U	0.60U	0.57U	0.60U	36J	2.0J
Chrysene	(ug/l)	0.41U	0.41U	0.41U	0.39U	0.41U	1.9U	0.37U
Dibenzo(a,h)anthracene	(ug/l)	0.40U	0.40U	0.40U	0.38U	0.40U	1.9U	0.37U
Dibenzofuran	(ug/l)	0.61U	0.61U	0.61U	0.59U	3.0J	2.9U	0.56U
Diethyl phthalate	(ug/l)	2.8U	2.8U	2.8U	2.7U	2.8U	13U	2.6U
Dimethyl phthalate	(ug/l)	0.48U	0.48U	0.48U	0.46U	0.48U	2.3U	0.44U
Di-n-butyl phthalate	(ug/l)	0.53U	0.53U	0.53U	0.51U	0.53U	2.5U	0.49U
Di-n-octyl phthalate	(ug/l)	0.49U	0.49U	0.49U	0.47U	0.49U	2.3U	0.45U
Fluoranthene	(ug/l)	0.56U	0.56U	0.56U	0.54U	1.1J	13J	0.61J
Fluorene	(ug/l)	0.62U	1.2J	0.62U	0.60U	2.1J	170	0.57U
Hexachlorobenzene	(ug/l)	0.50U	0.50U	0.50U	0.48U	0.50U	2.4U	0.46U
Hexachlorobutadiene	(ug/l)	0.43U	0.43U	0.43U	0.41U	0.43U	2.0U	0.39U
Hexachlorocyclopentadiene	(ug/l)	0.91U	0.91U	0.91U	0.88U	0.91U	4.4U	0.84U
Hexachloroethane	(ug/l)	0.50U	0.50U	0.50U	0.48U	0.50U	2.4U	0.46U
Indeno(1,2,3-cd)pyrene	(ug/l)	0.54U	0.54U	0.54U	0.52U	0.54U	2.6U	0.50U
Isophorone	(ug/l)	0.54U	0.54U	0.54U	0.52U	0.54U	2.6U	0.50U
Naphthalene	(ug/l)	1.8J	6.9J	0.83J	1.1J	6.2J	1700J	24
Nitrobenzene	(ug/l)	0.73U	0.73U	0.73U	0.70U	0.73U	3.5U	0.67U
N-Nitrosodiphenylamine	(ug/l)	0.56U	0.56U	0.56U	0.54U	0.56U	2.7U	0.51U
N-Nitrosodipropylamine	(ug/l)	0.68U	0.68U	0.68U	0.65U	0.68U	3.2U	0.62U
Pentachlorophenol	(ug/l)	0.95U	0.95U	0.95U	0.91U	0.95U	4.5U	0.87U
Phenanthrene	(ug/l)	0.63U	0.63U	0.63U	0.61U	1.0J	19J	0.85J
Phenol	(ug/l)	0.25U	48	120	17	5.1J	19000	7.2J
Pyrene	(ug/l)	0.64U	0.64U	0.64U	0.62U	0.77J	31J	0.59U
1,2,4-Trichlorobenzene	(ug/l)	0.45U	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	(ug/l)	0.55U	NA	NA	NA	NA	NA	NA
METALS								
Aluminum	(ug/l)	99.2BJ	72100	3020J	785J	40.3B	390000J	123B
Antimony	(ug/l)	2.9U	14.5U	2.9U	2.9U	2.9U	2.9U	2.9U
Arsenic	(ug/l)	2.2U	11.2U	27.1	5.6B	2.2U	56.5	2.2U
Barium	(ug/l)	809	28.2BJ	49.2B	594	19.2BJ	44.5B	88.9B
Beryllium	(ug/l)	0.32U	0.32U	0.32U	0.32U	0.32U	14.4	0.32U
Cadmium	(ug/l)	0.23U	0.23U	0.33B	0.23U	0.23U	0.23U	0.23U
Calcium	(ug/l)	633000J	93800J	24200J	568000J	45700J	443000J	57600J
Chromium	(ug/l)	5440	39400	2660	6340	32.6	6930	4.3B
Cobalt	(ug/l)	2.2B	5.7B	1.2B	9.6B	0.74B	162	0.70U
Copper	(ug/l)	0.72U	8.5B	48.3	6.0B	2.5B	0.72U	1.3B
Iron	(ug/l)	20.5B	123	925	212	673	309000	8120
Lead	(ug/l)	2.4U	2.4U	69	3.1	2.4U	401	79.4
Magnesium	(ug/l)	9.3BJ	12.7BJ	529BJ	97.8BJ	30300J	133000J	27400J
Manganese	(ug/l)	0.32U	0.32U	5.4B	3.1B	35	3590	268
Mercury	(ug/l)	0.055U	0.055U	0.055U	0.055U	0.055U	0.085B	0.055U
Nickel	(ug/l)	2.4B	11.5B	64.1	75.5	1.2B	1980	1.2B
Potassium	(ug/l)	117000E	48900	19000	43200	2410B	200000	13600
Selenium	(ug/l)	2.5U	2.5U	2.5U	2.5U	2.5U	34.3	2.5U
Silver	(ug/l)	0.59U	0.59U	1.2B	0.59U	0.59U	0.83B	0.59U
Sodium	(ug/l)	605000	798000	223000	841000	36600	1010000	64200
Thallium	(ug/l)	3.4BJ	14.8J	3.1U	3.4BJ	4.8BJ	15.4U	3.1U
Vanadium	(ug/l)	1.0U	4.7BJ	98.2	1.0U	4.8BJ	386	6.4B
Zinc	(ug/l)	2.1B	2.7B	20.1	3.7B	1.3U	818	1.5B

TABLE C-1
Form C - Item 10
SUMMARY OF REPRESENTATIVE INFLUENT DATA*
SCCC AND DIAMOND SITES
KEARNY, NEW JERSEY

CONSTITUENT	UNITS	113-W-113	113-W-114	113-W-115	113-W-116	SC-MW-12U	SC-MW-13L	SC-MW-15L
PESTICIDES/PCBS								
Aroclor 1016	(ug/l)	0.10U	0.12U	0.10U	0.10U	0.11U	7.5	0.10U
Aroclor 1221	(ug/l)	0.10U	0.12U	0.10U	0.10U	0.11U	1.0U	0.10U
Aroclor 1232	(ug/l)	0.12U	0.14U	0.12U	0.12U	0.13U	1.2U	0.12U
Aroclor 1242	(ug/l)	0.076U	0.086U	0.076U	0.077U	0.085U	0.76U	0.076U
Aroclor 1248	(ug/l)	0.093U	0.11U	0.093U	0.095U	0.10U	0.93U	0.093U
Aroclor 1254	(ug/l)	0.093U	0.11U	0.093U	0.095U	0.10U	0.93U	0.093U
Aroclor 1260	(ug/l)	0.055U	0.063U	0.055U	0.056U	0.062U	0.55U	0.055U
Aroclor 1262	(ug/l)	0.084U	0.096U	0.084U	0.086U	0.094U	0.84U	0.084U
Aroclor 1268	(ug/l)	0.11U	0.13U	0.11U	0.11U	0.12U	1.1U	0.11U
4,4'-DDD	(ug/l)	0.0079U	0.0090U	0.0079U	0.0080U	0.0088U	0.079U	0.0079U
4,4'-DDE	(ug/l)	0.0069U	0.0078U	0.0069U	0.0070U	0.0077U	0.069U	0.0069U
4,4'-DDT	(ug/l)	0.014U	0.016U	0.014U	0.014U	0.016U	0.14U	0.014U
Aldrin	(ug/l)	0.011U	0.013U	0.011U	0.012U	0.013U	0.12JPG	0.011U
alpha-BHC	(ug/l)	0.015U	0.018U	0.015U	0.039J	0.017U	0.15U	0.015U
alpha-Chlordane	(ug/l)	0.014J	0.013U	0.011U	0.012U	0.013U	0.38J	0.011U
beta-BHC	(ug/l)	0.015U	0.017U	0.015U	0.015U	0.017U	0.15U	0.015U
delta-BHC	(ug/l)	0.0097U	0.011U	0.015J	0.0098U	0.011U	0.24J	0.0097U
Dieldrin	(ug/l)	0.0082U	0.0093U	0.0082U	0.0083U	0.0091U	0.082U	0.0082U
Endosulfan I	(ug/l)	0.0076U	0.0086U	0.0076U	0.0077U	0.0085U	0.076U	0.0076U
Endosulfan II	(ug/l)	0.015U	0.017U	0.015U	0.016U	0.017U	0.15U	0.015U
Endosulfan sulfate	(ug/l)	0.016U	0.018U	0.016U	0.017U	0.018U	0.16U	0.016U
Endrin	(ug/l)	0.0078U	0.0088U	0.0078U	0.0079U	0.0087U	0.078U	0.0078U
Endrin aldehyde	(ug/l)	0.012U	0.014U	0.012U	0.013U	0.014U	0.12U	0.012U
Endrin ketone	(ug/l)	0.010U	0.012U	0.010U	0.010U	0.011U	0.10U	0.010U
gamma-Chlordane	(ug/l)	0.0077U	0.0088U	0.0077U	0.0079U	0.0086U	0.077U	0.0077U
Heptachlor	(ug/l)	0.014U	0.016U	0.014U	0.014U	0.016U	0.17JPG	0.014U
Heptachlor epoxide	(ug/l)	0.010U	0.011U	0.010U	0.010U	0.011U	0.10U	0.010U
Lindane	(ug/l)	0.015U	0.018U	0.015U	0.045J	0.017U	0.15U	0.015U
Methoxychlor	(ug/l)	0.019U	0.021U	0.019U	0.019U	0.021U	0.19U	0.019U
Toxaphene	(ug/l)	0.42U	0.48U	0.42U	0.43U	0.47U	4.2U	0.42U
WET CHEMISTRY								
BOD	(mg/l)	10.9	14.2	22.3	34.3	63.6	457	129
Total Organic Carbon (TOC)	(mg/l)	6.0J	1.3J	27.1J	18.7J	46.6J	7050J	18.4J
Chemical Oxygen Demand (COD)	(mg/l)	27	33.3	121	98.8	156	23900	66
Chromium (Hexavalent)	(ug/l)	4930	19300	100U	3630	10.0U	20.0U	10.0U
Cyanide	(ug/l)	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	(mg/l)	NA	NA	NA	NA	NA	NA	NA
Oil & Grease (HEM)	(mg/l)	0.54U	0.56U	0.51U	0.52U	0.51U	15.9	0.52U
Residue, filterable	(mg/l)	3200	1860	236	3910	424	21700	454
Residue, non-filterable	(mg/l)	4.0U	16.8	4.0U	18.8	4.0U	30.8	8
Total Alkalinity	(mg/l)	3000J	1980J	533J	2800J	73.0J	0.41U	316J
Total Sulfide	(mg/l)	NA	NA	NA	NA	NA	NA	NA

Qualifiers:

U - The compound was not detected at the indicated concentration.

NR - Not analyzed.

N/L - No Limit

*The monitoring well sample collection locations are shown in Form C Attachment C Figure C-1

Table C-2
SUMMARY OF REPRESENTATIVE INFLUENT DATA FROM SEABOARD SITE*
SCCC AND DIAMOND SITES
KEARNY, NEW JERSEY

CONSTITUENT	UNITS	MW-108 12/11/2008	MW-109 12/11/2008	MW-120 12/11/2008
VOLATILE COMPOUNDS (GC/MS)				
1,1,1-Trichloroethane	(ug/l)	<5.0	<1.3	<0.25
1,1,2,2-Tetrachloroethane	(ug/l)	<3.1	<0.77	<0.15
1,1,2-Trichloroethane	(ug/l)	<3.9	<0.98	<0.20
1,1-Dichloroethane	(ug/l)	<4.9	<1.2	<0.24
1,1-Dichloroethylene	(ug/l)	<5.6	<1.4	<0.28
1,2-Dichloroethane	(ug/l)	<4.3	<1.1	<0.21
1,2-Dichloropropane	(ug/l)	<3.6	<0.90	<0.18
2-Butanone	(ug/l)	<10	<2.5	<0.50
2-Hexanone	(ug/l)	<11	<2.7	<0.53
4-Methyl-2-pentanone	(ug/l)	<4.5	<1.1	<0.23
Acetone	(ug/l)	<50	<12	<2.5
Benzene	(ug/l)	410	<1.4	0.28J
Bromodichloromethane	(ug/l)	<4.0	<1.0	<0.20
Bromoform	(ug/l)	<4.9	<1.2	<0.25
Bromomethane	(ug/l)	<6.1	<1.5	<0.30
Carbon disulfide	(ug/l)	<3.9	<0.98	<0.20
Carbon Tetrachloride	(ug/l)	<6.1	<1.5	<0.30
Chlorobenzene	(ug/l)	310	120	<0.23
Chloroethane	(ug/l)	<5.0	<1.2	<0.25
Chloroform	(ug/l)	<4.8	<1.2	<0.24
Chloromethane	(ug/l)	<5.3	<1.3	<0.27
cis-1,2-Dichloroethylene	(ug/l)	<5.5	<1.4	<0.27
cis-1,3-Dichloropropene	(ug/l)	<3.9	<0.97	<0.19
Dibromochloromethane	(ug/l)	<3.3	<0.82	<0.16
Ethylbenzene	(ug/l)	6.0J	<0.91	<0.18
Methylene chloride	(ug/l)	<6.4	<1.6	<0.32
Styrene	(ug/l)	<4.4	<1.1	<0.22
Tetrachloroethylene	(ug/l)	<4.7	<1.2	<0.24
Toluene	(ug/l)	9.5J	<1.2	0.61J
trans-1,2-Dichloroethene	(ug/l)	<5.4	<1.4	<0.27
Trans-1,3-Dichloropropene	(ug/l)	<3.7	<0.92	<0.18
Trichloroethylene	(ug/l)	<5.9	<1.5	<0.29
Vinyl chloride	(ug/l)	<5.8	<1.5	<0.29
Xylene (total)	(ug/l)	27J	<3.1	<0.62
SEMIVOLATILE COMPOUNDS (GC/MS)				
1,2,4-Trichlorobenzene	(ug/l)	<3.0	<0.75	<0.15
1,2-Dichlorobenzene	(ug/l)	<4.4	<1.1	<0.22
1,3-Dichlorobenzene	(ug/l)	<3.3	2.4J	<0.16
1,4-Dichlorobenzene	(ug/l)	460	3.7J	<0.18
2,4,5-Trichlorophenol	(ug/l)	<0.14	<0.014	<0.014
2,4,6-Trichlorophenol	(ug/l)	<0.086	<0.0086	<0.0086
2,4-Dichlorophenol	(ug/l)	<0.13	<0.013	<0.013
2,4-Dimethylphenol	(ug/l)	91	<0.0076	<0.0075
2,4-Dinitrophenol	(ug/l)	<5.8	<0.58	<0.58
2,4-Dinitrotoluene	(ug/l)	<0.16	<0.016	<0.016
2,6-Dinitrotoluene	(ug/l)	<0.18	<0.018	<0.018
2-Chloronaphthalene	(ug/l)	<0.14	<0.014	<0.014
2-Chlorophenol	(ug/l)	<0.20	0.54J	<0.020

Table C-2
SUMMARY OF REPRESENTATIVE INFLUENT DATA FROM SEABOARD SITE*
SCCC AND DIAMOND SITES
KEARNY, NEW JERSEY

CONSTITUENT	UNITS	MW-108 12/11/2008	MW-109 12/11/2008	MW-120 12/11/2008
2-Methylnaphthalene	(ug/l)	130	<0.015	0.026J
2-Methylphenol	(ug/l)	100	<0.013	<0.013
2-Nitroaniline	(ug/l)	<0.16	<0.016	<0.016
2-Nitrophenol	(ug/l)	<0.13	<0.013	<0.013
3,3-Dichlorobenzidine	(ug/l)	<0.34	<0.034	<0.034
3-Nitroaniline	(ug/l)	<0.25	<0.025	<0.024
4,6-Dinitro-2-methylphenol	(ug/l)	<7.4	<0.74	<0.73
4-Bromophenylphenyl ether	(ug/l)	<0.18	<0.018	<0.018
4-Chloro-3-methylphenol	(ug/l)	<0.24	<0.024	<0.024
4-Chloroaniline	(ug/l)	<1.0	<0.10	<0.10
4-Chlorophenyl phenyl ether	(ug/l)	<0.099	<0.0099	<0.0098
4-Methylphenol	(ug/l)	36	<0.017	<0.017
4-Nitroaniline	(ug/l)	<0.22	<0.022	<0.021
4-Nitrophenol	(ug/l)	<3.7	<0.37	<0.37
Acenaphthene	(ug/l)	44	0.058J	1.6
Acenaphthylene	(ug/l)	<0.081	<0.0081	1.9
Anthracene	(ug/l)	0.99J	<0.0082	0.7
Benzo(a)anthracene	(ug/l)	<0.17	<0.017	0.37
Benzo(a)pyrene	(ug/l)	<0.11	<0.011	0.23
Benzo(b)fluoranthene	(ug/l)	<0.15	<0.015	0.29
Benzo(ghi)perylene	(ug/l)	<0.14	<0.014	0.21
Benzo(k)fluoranthene	(ug/l)	<0.16	<0.016	0.31
Bis(2-chloroethoxy)methane	(ug/l)	<0.13	<0.013	<0.013
Bis(2-chloroethyl)ether	(ug/l)	<0.25	<0.025	<0.025
Bis(2-ethylhexyl)phthalate (BEH	(ug/l)	<0.44	0.22J	0.35J
Butyl benzyl phthalate	(ug/l)	<2.9	<0.29	0.48J
Carbazole	(ug/l)	<0.13	<0.013	1.3
Chrysene	(ug/l)	<0.10	<0.010	0.36
Dibenzo(a,h)anthracene	(ug/l)	<0.12	<0.012	0.28
Dibenzofuran	(ug/l)	13	0.041J	0.93J
Diethyl phthalate	(ug/l)	<0.43	0.37J	0.19J
Dimethyl phthalate	(ug/l)	<0.13	<0.013	<0.013
Di-n-butyl phthalate	(ug/l)	<0.28	<0.028	0.31J
Di-n-octyl phthalate	(ug/l)	<0.15	0.053J	0.25J
Fluoranthene	(ug/l)	0.89J	<0.0095	2.4
Fluorene	(ug/l)	7.6	<0.0094	<0.0093
Hexachlorobenzene	(ug/l)	<0.17	<0.017	<0.017
Hexachlorobutadiene	(ug/l)	<0.11	<0.011	<0.011
Hexachlorocyclopentadiene	(ug/l)	<0.11	<0.011	<0.011
Hexachloroethane	(ug/l)	<0.073	<0.0073	<0.0072
Indeno(1,2,3-cd)pyrene	(ug/l)	<0.15	<0.015	0.31
Isophorone	(ug/l)	<0.27	<0.027	<0.027
Naphthalene	(ug/l)	4900	<0.027	0.2
Nitrobenzene	(ug/l)	<0.17	<0.017	<0.017
N-Nitrosodiphenylamine	(ug/l)	<0.13	<0.013	<0.013
N-Nitrosodipropylamine	(ug/l)	<0.37	<0.037	<0.036
Pentachlorophenol	(ug/l)	<1.8	<0.18	0.93J
Phenanthrene	(ug/l)	3.2	<0.027	0.23
Phenol	(ug/l)	17	<0.023	<0.022
Pyrene	(ug/l)	0.67J	<0.011	1.3

Table C-2
SUMMARY OF REPRESENTATIVE INFLUENT DATA FROM SEABOARD SITE*
SCCC AND DIAMOND SITES
KEARNY, NEW JERSEY

CONSTITUENT	UNITS	MW-108 12/11/2008	MW-109 12/11/2008	MW-120 12/11/2008
METALS				
Aluminum	(ug/l)	1990	694	50.1
Antimony	(ug/l)	2.2	0.20U	0.55J
Arsenic	(ug/l)	22.8	1.3B	2.6B
Barium	(ug/l)	7.7J	224	41.3
Beryllium	(ug/l)	0.33J	<0.068	<0.068
Cadmium	(ug/l)	<0.11	<0.11	<0.11
Calcium	(ug/l)	6900	63600	312000
Chromium	(ug/l)	3500	6.8B	49.5
Cobalt	(ug/l)	2.6	0.78	3.4
Copper	(ug/l)	12.7	2.5	2.1
Iron	(ug/l)	244	15500	23100
Lead	(ug/l)	11.3	1	69
Magnesium	(ug/l)	16700	22500	171000
Manganese	(ug/l)	26.4	2280	853
Mercury	(ug/l)	0.14J	<0.016	0.016J
Nickel	(ug/l)	23.4	2.8	23.7
Potassium	(ug/l)	25100	6290	67000
Selenium	(ug/l)	6.8	0.39U	7.7
Silver	(ug/l)	<0.077	<0.077	<0.077
Sodium	(ug/l)	754000	62400	978000
Thallium	(ug/l)	<0.018	<0.018	0.35J
Vanadium	(ug/l)	234	3.6B	3.4B
Zinc	(ug/l)	13.9	14	6.8B
WET CHEMISTRY	**SEE UNITS**			
Alkalinity	(mg/l)	1100	265	510
Total Organic Carbon (TOC)	(ug/l)	<210	37000	84000
Chloride	(mg/l)	526	123	1690
Cyanide, available	(mg/l)	0.018	<0.0015	<0.0015
Cyanide, total	(mg/l)	0.011	0.0091U	0.044
DO	(mg/l)	0.21	0.31	0.37
Ferrous Iron	(mg/l)	0.72	16.2	20.4
Methane	(ug/l)	3100	1900	190
Nitrate (as N)	(mg/l)	<0.0077	<0.0077	0.24J
Oxidation Reduction Potential	mV	-361.5	-74.6	-10.4
pH	S.U.	8.81	6.3	6.16
Specific Conductivity	ms/cm	2.53	0.651	6.029
Sulfate	(mg/l)	84.4	4.8	867
Temperature	C	8.65	11.01	12.47
Turbidity	NTU	1.27	27	2.27

NOTES:

< - Constituent not detected at reported concentration
U - Qualified non-detect due to lab interference
J - Result estimated
B - Blank contamination

*Monitoring well locations are shown in Form C Attachment C Figure C-1

Table C-3
SUMMARY OF REPRESENTATIVE INFLUENT DATA FROM LAGOON WATER*
SCCC AND DIAMOND SITES
KEARNY, NEW JERSEY

CONSTITUENT	UNITS	ELWS-01 4/25/2008	ELWS-02 4/25/2008	ELWS-DUP 4/25/2008	WLWS-01 4/25/2008	WLWS-02 4/25/2008
VOLATILE COMPOUNDS (GC/MS)						
1,1,1-Trichloroethane	(ug/l)	0.79U	0.79U	0.79U	0.79U	0.79U
1,1,2,2-Tetrachloroethane	(ug/l)	0.63U	0.63U	0.63U	0.63U	0.63U
1,1,2-Trichloroethane	(ug/l)	0.79U	0.79U	0.79U	0.79U	0.79U
1,1,2-Trichloro-1,2,2-trifluoroethane	(ug/l)	1.2U	1.2U	1.2U	1.2U	1.2U
1,1-Dichloroethane	(ug/l)	1.0U	1.0U	1.0U	1.0U	1.0U
1,1-Dichloroethylene	(ug/l)	0.87U	0.87U	0.87U	0.87U	0.87U
1,2,4-Trichlorobenzene	(ug/l)	5.3	13	12	0.74J	1.4J
1,2-Dibromoethane (EDB)	(ug/l)	0.64U	0.64U	0.64U	0.64U	0.64U
1,2-Dichlorobenzene	(ug/l)	0.65U	0.65U	0.65U	0.65U	0.65U
1,2-Dichloroethane	(ug/l)	0.64U	0.64U	0.64U	0.64U	0.64U
1,2-Dichloropropane	(ug/l)	0.67U	0.67U	0.67U	0.67U	0.67U
1,3-Dichlorobenzene	(ug/l)	6.4	16	17	2.5J	6.4
1,4-Dichlorobenzene	(ug/l)	12	44	45	1.6J	11
2-Butanone	(ug/l)	0.73U	0.73U	0.73U	0.73U	0.73U
2-Hexanone	(ug/l)	0.45U	0.45U	0.45U	0.45U	0.45U
4-Methyl-2-pentanone	(ug/l)	0.46U	0.46U	0.46U	0.46U	0.46U
Acetone	(ug/l)	5.0U	5.0U	5.0U	5.0U	5.0U
Benzene	(ug/l)	0.81U	0.81U	0.81U	0.81U	0.81U
Bromodichloromethane	(ug/l)	0.58U	0.58U	0.58U	0.58U	0.58U
Bromoform	(ug/l)	0.37U	0.37U	0.37U	0.37U	0.37U
Bromomethane	(ug/l)	0.75U	0.75U	0.75U	0.75U	0.75U
Carbon disulfide	(ug/l)	1.1U	1.1U	1.1U	1.1U	1.1U
Carbon Tetrachloride	(ug/l)	0.91U	0.91U	0.91U	0.91U	0.91U
Chlorobenzene	(ug/l)	0.71U	1.4J	1.4J	1.8J	5.2
Chloroethane	(ug/l)	1.1U	1.1U	1.1U	1.1U	1.1U
Chloroform	(ug/l)	0.78U	0.78U	0.78U	0.78U	0.78U
Chloromethane	(ug/l)	0.87U	0.87U	0.87U	0.87U	0.87U
cis-1,2-Dichloroethylene	(ug/l)	1.0U	1.0U	1.0U	1.0U	1.0U
cis-1,3-Dichloropropene	(ug/l)	0.79U	0.79U	0.79U	0.79U	0.79U
Cyclohexane	(ug/l)	1.1U	1.1U	1.1U	1.1U	1.1U
Dibromochloropropane	(ug/l)	1.3U	1.3U	1.3U	1.3U	1.3U
Dibromochloromethane	(ug/l)	0.50U	0.50U	0.50U	0.50U	0.50U
Dichlorodifluoromethane	(ug/l)	1.0U	1.0U	1.0U	1.0U	1.0U
Ethylbenzene	(ug/l)	0.58U	0.58U	0.58U	0.58U	0.58U
Isopropylbenzene	(ug/l)	0.72U	0.72U	0.72U	0.72U	0.72U
Methyl Acetate	(ug/l)	0.47U	0.47U	0.47U	0.47U	0.47U
Methylcyclohexane	(ug/l)	1.1U	1.1U	1.1U	1.1U	1.1U
Methylene chloride	(ug/l)	0.75U	0.75U	0.75U	0.75U	0.75U
Methyltert-butylether	(ug/l)	0.77U	0.77U	0.77U	0.77U	0.77U
Styrene	(ug/l)	0.80U	0.80U	0.80U	0.80U	0.80U
Tetrachloroethylene	(ug/l)	0.57U	0.57U	0.57U	0.57U	0.57U
Toluene	(ug/l)	0.80U	0.80U	0.80U	0.80U	0.80U
trans-1,2-Dichloroethene	(ug/l)	0.90U	0.90U	0.90U	0.90U	0.90U
Trans-1,3-Dichloropropene	(ug/l)	0.57U	0.57U	0.57U	0.57U	0.57U
Trichloroethylene	(ug/l)	0.88U	0.88U	0.88U	0.88U	0.88U
Trichlorofluoromethane	(ug/l)	0.80U	0.80U	0.80U	0.80U	0.80U
Vinyl chloride	(ug/l)	0.94U	0.94U	0.94U	0.94U	0.94U
Xylene (total)	(ug/l)	2.4U	2.4U	2.4U	2.4U	2.4U

Table C-3
SUMMARY OF REPRESENTATIVE INFLUENT DATA FROM LAGOON WATER*
SCCC AND DIAMOND SITES
KEARNY, NEW JERSEY

CONSTITUENT	UNITS	ELWS-01 4/25/2008	ELWS-02 4/25/2008	ELWS-DUP 4/25/2008	WLWS-01 4/25/2008	WLWS-02 4/25/2008
SEMIVOLATILE COMPOUNDS (GC/MS)						
1,1'-Biphenyl	(ug/l)	2.0J	2.4J	2.4J	0.67U	0.66U
2,2'-oxybis(1-chloropropane)	(ug/l)	0.27U	0.29U	0.28U	0.29U	0.29U
2,4,5-Trichlorophenol	(ug/l)	0.66U	0.70U	0.68U	0.69U	0.69U
2,4,6-Trichlorophenol	(ug/l)	0.60U	0.64U	0.62U	0.63U	0.62U
2,4-Dichlorophenol	(ug/l)	0.51U	0.54U	0.91J	0.54U	0.53U
2,4-Dimethylphenol	(ug/l)	0.55U	24	19	5.1J	8.0J
2,4-Dinitrophenol	(ug/l)	14U	14U	14U	14U	14U
2,4-Dinitrotoluene	(ug/l)	0.48U	0.51U	0.49U	0.50U	0.50U
2,6-Dinitrotoluene	(ug/l)	0.54U	0.57U	0.55U	0.56U	0.56U
2-Chloronaphthalene	(ug/l)	0.47U	0.50U	0.48U	0.49U	0.49U
2-Chlorophenol	(ug/l)	0.48U	0.51U	0.49U	0.50U	0.50U
2-Methylnaphthalene	(ug/l)	0.63J	0.52U	0.51U	0.52U	0.55J
2-Methylphenol	(ug/l)	13	15	14	8.5J	9.1J
2-Nitroaniline	(ug/l)	0.50U	0.53U	0.52U	0.53U	0.52U
2-Nitrophenol	(ug/l)	0.57U	0.61U	0.59U	0.60U	0.59U
3,3-Dichlorobenzidine	(ug/l)	0.43U	0.46U	0.45U	0.45U	0.45U
3-Nitroaniline	(ug/l)	0.43U	0.45U	0.44U	0.45U	0.44U
4,6-Dinitro-2-methylphenol	(ug/l)	15U	16U	15U	16U	16U
4-Bromophenylphenyl ether	(ug/l)	0.53U	0.56U	0.54U	0.55U	0.55U
4-Chloroaniline	(ug/l)	0.49U	0.52U	0.50U	0.51U	0.51U
4-Chlorophenyl phenyl ether	(ug/l)	0.45U	0.48U	0.46U	0.47U	0.47U
4-Chloro-3-methylphenol	(ug/l)	0.63U	0.66U	0.64U	0.66U	0.65U
4-Methylphenol	(ug/l)	27	50	47	14	18
4-Nitroaniline	(ug/l)	0.27U	0.28U	0.28U	0.28U	0.28U
4-Nitrophenol	(ug/l)	0.74U	0.79U	0.76U	0.78U	0.77U
Acenaphthene	(ug/l)	2.5J	1.7J	1.5J	3.9J	2.6J
Acenaphthylene	(ug/l)	0.53J	0.64J	0.50U	0.51U	0.51U
Acetophenone	(ug/l)	2.2J	2.3J	2.3J	0.51U	0.51U
Anthracene	(ug/l)	0.85J	1.0J	1.7J	0.56U	0.56U
Atrazine	(ug/l)	0.41U	0.44U	0.42U	0.43U	0.43U
Benzaldehyde	(ug/l)	0.57U	0.61U	0.59U	0.60U	0.60U
Benzo(a)anthracene	(ug/l)	0.44U	0.46U	0.45U	0.46U	0.45U
Benzo(a)pyrene	(ug/l)	0.46U	0.49U	0.48U	0.49U	0.48U
Benzo(b)fluoranthene	(ug/l)	0.33U	0.35U	0.34U	0.35U	0.34U
Benzo(ghi)perylene	(ug/l)	0.29U	0.31U	0.30U	0.30U	0.30U
Benzo(k)fluoranthene	(ug/l)	0.42U	0.44U	0.43U	0.44U	0.43U
Bis(2-chloroethoxy)methane	(ug/l)	1.3U	1.4U	1.3U	1.4U	1.3U
Bis(2-chloroethyl)ether	(ug/l)	0.49U	0.52U	0.50U	0.51U	0.51U
Bis(2-ethylhexyl)phthalate	(ug/l)	1.3U	1.3U	1.3U	1.3U	1.3U
Butyl benzyl phthalate	(ug/l)	1.5U	1.5U	1.5U	1.5U	1.5U
Caprolactam	(ug/l)	2.0U	2.1U	2.0U	2.1U	2.1U
Carbazole	(ug/l)	0.55U	0.59U	0.57U	0.58U	0.57U
Chrysene	(ug/l)	0.38U	0.40U	0.39U	0.39U	0.39U
Dibenzo(a,h)anthracene	(ug/l)	0.37U	0.39U	0.38U	0.39U	0.38U
Dibenzofuran	(ug/l)	0.57U	0.60U	1.2J	0.59U	0.59U
Diethyl phthalate	(ug/l)	2.6U	2.7U	2.7U	2.7U	2.7U
Dimethyl phthalate	(ug/l)	0.45U	0.47U	0.46U	0.47U	0.46U
Di-n-butyl phthalate	(ug/l)	0.49U	0.52U	0.51U	0.51U	0.51U

Table C-3
SUMMARY OF REPRESENTATIVE INFLUENT DATA FROM LAGOON WATER*
SCCC AND DIAMOND SITES
KEARNY, NEW JERSEY

CONSTITUENT	UNITS	ELWS-01 4/25/2008	ELWS-02 4/25/2008	ELWS-DUP 4/25/2008	WLWS-01 4/25/2008	WLWS-02 4/25/2008
Di-n-octyl phthalate	(ug/l)	0.45U	0.48U	0.46U	0.47U	0.47U
Fluoranthene	(ug/l)	0.52U	0.57J	0.54U	0.55U	0.54U
Fluorene	(ug/l)	0.79J	0.61U	0.98J	0.68J	0.60U
Hexachlorobenzene	(ug/l)	0.46U	0.49U	0.47U	0.48U	0.48U
Hexachlorobutadiene	(ug/l)	0.40U	0.42U	0.41U	0.42U	0.41U
Hexachlorocyclopentadiene	(ug/l)	0.85U	0.90U	0.87U	0.89U	0.88U
Hexachloroethane	(ug/l)	0.46U	0.49U	0.47U	0.48U	0.48U
Indeno(1,2,3-cd)pyrene	(ug/l)	0.50U	0.53U	0.52U	0.53U	0.52U
Isophorone	(ug/l)	0.50U	0.53U	0.52U	0.53U	0.52U
Naphthalene	(ug/l)	6.6J	2.3J	2.0J	8.4J	7.3J
Nitrobenzene	(ug/l)	0.68U	0.72U	0.70U	0.71U	0.70U
N-Nitrosodiphenylamine	(ug/l)	0.52U	0.55U	0.53U	0.54U	0.54U
N-Nitrosodipropylamine	(ug/l)	0.63U	0.67U	0.65U	0.66U	0.65U
Pentachlorophenol	(ug/l)	0.88U	0.93U	0.90U	0.92U	0.91U
Phenanthrene	(ug/l)	0.85J	1.1J	0.90J	0.61U	0.61U
Phenol	(ug/l)	24	24	21	22	20
Pyrene	(ug/l)	0.60U	0.63U	0.62U	0.63U	0.62U
1,2,4-Trichlorobenzene	(ug/l)	5.1	NA	NA	NA	NA
1,4-Dichlorobenzene	(ug/l)	10	NA	NA	NA	NA
METALS						
Aluminum	(ug/l)	63.0BJ	71.2BJ	61.7B	45.1BJ	54.3BJ
Antimony	(ug/l)	2.9U	2.9U	2.9U	2.9U	2.9U
Arsenic	(ug/l)	2.2U	2.2U	2.2U	2.2U	2.2U
Barium	(ug/l)	15.9B	14.7B	15.0B	9.0B	9.2B
Beryllium	(ug/l)	0.32U	0.32U	0.32U	0.32U	0.32U
Cadmium	(ug/l)	0.23U	0.23U	0.23U	0.23U	0.23U
Calcium	(ug/l)	47500J	46600J	47600J	39300J	40100J
Chromium	(ug/l)	118	115	118	61	61.2
Cobalt	(ug/l)	1.9B	1.9B	1.5B	0.83B	0.87B
Copper	(ug/l)	6.7B	6.5B	6.6B	3.5B	3.7B
Iron	(ug/l)	1240	1280	1300	279	319
Lead	(ug/l)	57.5	56.3	57.7	5.9	7.2
Magnesium	(ug/l)	72900J	71400J	72800J	49900J	50500J
Manganese	(ug/l)	112	113	115	38.1	39.2
Mercury	(ug/l)	0.24	0.23	0.22	0.074B	0.085B
Nickel	(ug/l)	17.8B	17.9B	18.0B	9.8B	9.6B
Potassium	(ug/l)	2680B	2580B	2620B	1710B	1710B
Selenium	(ug/l)	2.5U	2.5U	2.5U	2.5U	2.5U
Silver	(ug/l)	0.78B	0.59U	0.59U	0.69B	0.59U
Sodium	(ug/l)	48100	46600	47200	32600	32800
Thallium	(ug/l)	3.1U	3.1U	3.1U	3.1U	3.1U
Vanadium	(ug/l)	17.6B	16.4B	17.6B	12.1B	11.9B
Zinc	(ug/l)	6.6B	7.4B	6.5B	7.9B	3.6B
PCBS						
Aroclor 1016	(ug/l)	0.10U	0.10U	0.10U	0.10U	0.10U
Aroclor 1221	(ug/l)	0.10U	0.10U	0.10U	0.10U	0.10U
Aroclor 1232	(ug/l)	0.12U	0.12U	0.12U	0.12U	0.12U
Aroclor 1242	(ug/l)	0.077U	0.077U	0.076U	0.077U	0.077U
Aroclor 1248	(ug/l)	0.095U	0.095U	0.093U	0.094U	0.095U

Table C-3
SUMMARY OF REPRESENTATIVE INFLUENT DATA FROM LAGOON WATER*
SCCC AND DIAMOND SITES
KEARNY, NEW JERSEY

CONSTITUENT	UNITS	ELWS-01 4/25/2008	ELWS-02 4/25/2008	ELWS-DUP 4/25/2008	WLWS-01 4/25/2008	WLWS-02 4/25/2008
Aroclor 1254	(ug/l)	0.095U	0.095U	0.093U	0.094U	0.095U
Aroclor 1260	(ug/l)	0.056U	0.056U	0.055U	0.056U	0.056U
Aroclor 1262	(ug/l)	0.086U	0.086U	0.084U	0.085U	0.086U
Aroclor 1268	(ug/l)	0.11U	0.11U	0.11U	0.11U	0.11U
PESTICIDES						
4,4'-DDD	(ug/l)	0.0080U	0.0080U	0.0079U	0.0080U	0.0080U
4,4'-DDE	(ug/l)	0.0070U	0.0070U	0.0069U	0.0070U	0.0070U
4,4'-DDT	(ug/l)	0.014U	0.014U	0.014U	0.014U	0.014U
Aldrin	(ug/l)	0.012U	0.012U	0.011U	0.011U	0.012U
alpha-BHC	(ug/l)	0.016U	0.016U	0.015U	0.016U	0.016U
alpha-Chlordane	(ug/l)	0.012U	0.012U	0.011U	0.012U	0.012U
beta-BHC	(ug/l)	0.015U	0.015U	0.015U	0.015U	0.015U
delta-BHC	(ug/l)	0.022JPG	0.047JPG	0.049J	0.0097U	0.0098U
Dieldrin	(ug/l)	0.0083U	0.0083U	0.0082U	0.0082U	0.0083U
Endosulfan I	(ug/l)	0.0077U	0.0077U	0.0076U	0.0076U	0.0077U
Endosulfan II	(ug/l)	0.016U	0.016U	0.015U	0.016U	0.016U
Endosulfan sulfate	(ug/l)	0.017U	0.017U	0.016U	0.016U	0.017U
Endrin	(ug/l)	0.0094JPG	0.010JPG	0.011J	0.0079U	0.018JPG
Endrin aldehyde	(ug/l)	0.013U	0.013U	0.012U	0.012U	0.013U
Endrin ketone	(ug/l)	0.010U	0.010U	0.010U	0.010U	0.010U
gamma-Chlordane	(ug/l)	0.0079U	0.0079U	0.0077U	0.0078U	0.0079U
Heptachlor	(ug/l)	0.014U	0.014U	0.014U	0.014U	0.014U
Heptachlor epoxide	(ug/l)	0.010U	0.010U	0.010U	0.010U	0.010U
Lindane	(ug/l)	0.016U	0.016U	0.015U	0.016U	0.016U
Methoxychlor	(ug/l)	0.019U	0.13	0.12	0.019U	0.019U
Toxaphene	(ug/l)	0.43U	0.43U	0.42U	0.42U	0.43U
WET CHEMISTRY	**SEE UNITS**					
BOD	(mg/l)	78	74.9	69.8	33.1	32
Total Organic Carbon (TOC)	(mg/l)	138J	134J	NA	68.2J	69.6J
Chemical Oxygen Demand (COD)	(mg/l)	411	397	NA	187	192
Chromium (Hexavalent)	(ug/l)	10.0U	10.0U	10.0U	10.0U	10.0U
Cyanide	(ug/l)	2.0B	1.7U	NA	1.7U	1.7U
Ferrous Iron	(mg/l)	0.15	0.13	0.18	0.1U	0.1U
Oil & Grease (HEM)	(mg/l)	0.54U	0.54U	NA	0.54U	0.52U
Residue, filterable	(mg/l)	823	888	NA	565	522
Residue, non-filterable	(mg/l)	4.0U	4.0U	NA	4.0U	4.0U
Total Alkalinity	(mg/l)	213J	207J	NA	172J	174J
Total Sulfide	(mg/l)	1.2U	1.2U	NA	1.2U	1.2U

Qualifiers:

B - Reported value is less than the Reporting Limit but greater than the Instrument Detection Limit.
J – Estimated result less than the reporting limit
PG – The percent difference between the original and conformation analyses is greater than 40%.
U - The compound was not detected at the indicated concentration.
NR - Not Analyzed
N/L - No Limit
*The Lagoon location is shown in Form C Attachment C Figure C-1

BGR Certification Form

State of New Jersey Department of Environmental Protection
Division of Water Quality

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER QUALITY
P.O. BOX 029
TRENTON, NJ 08625-0029

BGR CERTIFICATION FORM

Administrative Certification

Any applicant who requests authorization under the New Jersey Pollutant Discharge Elimination System (NJPDES) General Groundwater Remediation Cleanup Permit No. NJ0155438 (Category BGR) is required to publish their intent in a local newspaper pursuant to N.J.A.C. 7:14A-6.13(d)3. The following public notice shall be used as established in the General Permit:

> "Notice is hereby given that pursuant to N.J.A.C. 7:14A-6.13(d)3, see below [name of applicant] intends to submit a request for authorization under the General Groundwater Remediation Cleanup Permit No. NJ0155438 to the New Jersey Department of Environmental Protection. This authorization will allow Diamond Site and SCCC Site [name and address* of facility] to discharge treated groundwater from a remediation project into Hackensack River [name of receiving water body] , which is a surface water of the State."

Please complete the certification to request authorization under the General Groundwater Remediation Cleanup Permit:

> I certify that arrangements have been made for publication for one day, a daily or weekly newspaper within the area affected by the facility, that this request for authorization under the NJPDES General Groundwater Remediation Cleanup Permit No. NJ0155438 will be submitted to the New Jersey Department of Environmental Protection.

Signature
David Rabbe, President
Tierra Solutions, Inc.
Printed Name/Title

* Diamond Site
1015 Belleville Turnpike
Kearny, NJ 07032

Signature
Margaret W. Kelly, Vice President/General Counsel
Standard Chlorine Chemical Co., Inc.
Printed Name/Title

* Standard Chlorine Chemical Co. (SCCC) Site
1035 Belleville Turnpike
Kearny, NJ 07032

NJPDES Residual Application Form R

SUPPLEMENTAL APPLICATION FORM TO NJPDES- 1
FOR NJPDES RESIDUAL PERMITS

State of New Jersey Department of Environmental Protection
Division of Water Quality

FACILITY NAME: SCCC and Diamond Sites NJPDES PERMIT NO.: _____ FORM R - 1
(new applicants leave blank) Rev. 04/23/98

FORM R **NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION**
DIVISION OF WATER QUALITY

R

Refer to Appropriate Completeness Checklist and Instructions. Provide All Applicable Information. Please Print or Type. (Attach additional sheets if necessary)

SUPPLEMENTAL APPLICATION FORM TO NJPDES-1 FOR NJPDES RESIDUAL PERMITS

PART A: GENERAL INFORMATION

APPLICATION OVERVIEW: Form R is divided into nine parts (A-I). All applicants for a NJPDES permit must complete Part A. The applicability of Parts B, C, D, E, F, G, H and I can be determined by reviewing section A4 of this form.

A1. Screening Information

1. Does/will the facility: (1) generate a residual or a hazardous waste as a by-product of wastewater treatment for which a NJPDES application is being made, (2) generate a residual from the treatment of water for public consumption, or (3) derive a material from residual?

   __X__ Yes _____ No

   If you answered "yes", go to question 2. If you answered "no", this application does not need to be completed; however, submit this page as documentation that no residual is produced.

2. If you answered "yes" to question 1 above, is the by-product produced a hazardous waste or is the residual manifested as if it were a hazardous waste?

   __X__ Yes _____ No

   If yes, complete only Part A. If no, you must complete, at a minimum, Parts A, B and I.

A2. Facility Information.

a. Name of facility: Standard Chlorine Chemical Co., Inc. (SCCC) and Diamond Sites

b. Facility contact. Name: Peter Sawchuck

Title: Project Manager, Key Environmental, Inc. Phone: (908) 534-4501; (207) 772-8100

c. Facility location:

Street or Route #: 1025-1035, 1015 Belleville Turnpike

County: Hudson

City or town: Kearny State: NJ Zip: 07032

d. Facility mailing address:

Street or Route #: 456 US Highway 22 West, Suite 3

City or town: Whitehouse Station State: NJ Zip: 08889

A3. Use and Disposal Sites.

a. **Amount of residual or hazardous waste**: Provide the total dry metric tons per latest 365-day period (calendar year) of residual or hazardous waste handled by the process/discharge for which the NJPDES application is being made.

Total amount generated on-site at the facility: 0

Total amount received from off-site: 0

b. Provide the following information for each site on which the residual or hazardous waste indicated above from this facility is treated, transferred, used or disposed (attach additional sheets as necessary):

Name of facility: NA

Facility contact: Name _____

Title _____ Phone ( ) _____

Facility mailing address:

Street or P.O. Box _____

City or town _____ State _____ Zip _____

A4. Additional Information.

Review the following outline to determine if Parts B through I of this form must be completed.

1. **PART B: GENERATION OR PREPARATION**
   Part B must be completed by applicants who either: 1) Generate a residual which is not being manifested as if it were a hazardous waste (for example, sewage sludge, water treatment residual, food processing residual); or 2) Derive a material from residual.

2. **PART C: ENVIRONMENTAL ASSESSMENT**
   Part C provides guidance for preparing and submitting an Environmental Assessment as required under N.J.A.C. 7:14A-20.6. An Environmental Assessment is required for: (1) the locations where residuals are prepared for land application, (2) the location where residuals are or were placed on a surface disposal site, or (3) the location for residual transfer stations, or as otherwise determined by the Department under N.J.A.C. 7:14A-20.5. An Environmental Assessment is not required for each individual residual land application site. This requirement may also be waived by the Department if no additional infrastructure is proposed. (For example, if a domestic treatment works already has approval to operate anaerobic digesters and is applying for a permit to land apply the residual already generated from the digesters, an environmental assessment is not required.) Contact the Bureau of Pretreatment and Residuals at (609) 633-3823 for specific guidance on whether an environmental assessment is required.

3. **PART D: LAND APPLICATION OF RESIDUAL**
   Part D must be completed by applicants who either: 1) Apply residual to the land; or 2) Prepare residual that is applied to the land by others. Applicants who meet either or both of the above criteria are exempted from this part if **all** of the residual generated is sent to another facility to be prepared for land application.

4. **PART E: SURFACE DISPOSAL**
   Part E must be completed by applicants who own or operate a residual surface disposal site.

5. **PART F: OUT-OF-STATE GENERATORS**
   Part F must be completed by out-of-state generators preparing residual for land application in the State of New Jersey.

6. **PART G: RESIDUAL TRANSFER STATION**
   Part G must be completed by applicants who own or operate a residual transfer station.

7. **PART H: REED BEDS**
   Part H must be completed by applicants who own or operate a residual reed bed management system.

8. **PART I: CERTIFICATION**
   Part I must be completed by all applicants required to complete information under Parts B through H above.

For copies of Parts B through I, contact the Bureau of Permits Management at (609) 984-4428. If you have specific questions or need assistance in completing application Form R, contact the Bureau of Pretreatment and Residuals at (609) 633-3823.

PART B. GENERATION OF RESIDUAL OR PREPARATION OF A MATERIAL DERIVED FROM RESIDUAL

Part B must be completed by applicants who generate a residual by a process and/or discharge for which the NJPDES application is being made (including, but not limited to, sewage sludge, water treatment plant residual, and food processing residual), or derive a material from residual.

B1. Facility Information.

a. Is this facility a Class 1 Sludge Management Facility? (Note: a domestic treatment works required to have an approved industrial pretreatment program is a Class 1 Sludge Management Facility. Other treatment works may be designated as Class 1 by the Department on a case-by-case basis.)

_____Yes __X__No

b. Facility design influent flow (wastewater) rate, if applicable: HCTS - 0.03 TCTS - 0.099 mgd

c. Total population served, if applicable: NA

d. For residual management operations (e.g. incinerator, stabilization operation, etc.):

Maximum Daily Capacity: HCTS - 0.88, TCTS - 0.63 Est. (Dry Metric Tons/day)

Average Daily Capacity: HCTS - 0.35, TCTS - 0.59 Est. (Dry Metric Tons/day)

e. Indicate the type(s) of facility:

_____Publicly owned treatment works

_____Privately owned treatment works

_____Federally owned treatment works

_____Residual blending or treatment operation

_____Surface disposal site

_____Industrial treatment works

__X__Other. If other, explain: Treatment systems for water generated during site remediation for surface water discharge.

B2. Line Drawing.

a. Provide a line drawing of residual flow through the facility, and/or a narrative description that identifies all residual practices that will be employed during the term of the permit, including all processes used for collecting, dewatering, storing, or treating residual, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction (attach additional sheets as necessary).

See Form R Attachment A, Figure 2 – Hydraulic Control Treatment System;
Figure 3 – Temporary Construction Treatment System;
Figure 4 - USGS Map.

b. Provide a description of residual use and disposal practices:

Filter press sludge transported off-site to an industrial waste or hazardous waste disposal facility, depending on RCRA characteristics and TCLP testing. Disposal site(s) to be a licensed facility. GAC media transported off-site to activated carbon recycling facility for thermal regeneration or disposal, depending on characterization. DNAPL recovered from wells will be transported off-site for disposal. Bag filters transported off-site will be disposed in an industrial waste landfill, or hazardous disposal facility, pending characterization.

B3. Plot Plan. See Figure 1 for tentative location proposed for outfalls and treatment facility

Where the following information is applicable, attach a Municipal Tax Map (clear copy or original) or equivalent plot plan as may be accepted by the Department drawn to scale depicting the following information:

1. The location of all sites at which residual is stored at the facility for which the NJPDES application is being made; and

2. The location of any sites where the applicant transfers or plans to transfer residuals for treatment and/or disposal.

B4. Contractor Information.

Are any operational or maintenance aspects of this facility related to residual generation, treatment, use or disposal the responsibility of a contractor?

__X__ Yes _____ No

If yes, provide the following for each contractor (attach additional pages if necessary).

Name: Key Environmental, Inc.

Street or P.O. Box: 456 US Highway 22 West, Suite 3

City or Town: Whitehouse Station State: NJ Zip: 08889

Phone Number: (908) 534-4501

Responsibilities of contractor:

Key Environmental, Inc. provides contractor responsibilities to SCCC, Inc. and Tierra, Inc. for remediation of the site and operational assistance during treatment/discharge activity. Contractors will be hired as needed to complete the remediation and operations.

B5. Residual Quality Information New Facility

Provide a summary of all data submitted under the Sludge Quality Assurance Regulations (N.J.A.C. 7:14-4) for the previous 12-month period. If no data is available, a sample must be taken, analyzed and reported where required pursuant to the Sludge Quality Assurance Regulations (SQAR). For new facilities, a sample must be be taken and analyzed within 90 days of the start of operation as required by SQAR.

B6. Residual Amount Generated On Site.

a. Is domestic sewage included in the process where residual is generated?

_____ Yes __X__ No (If yes, percent of total influent flow: _____%)

b. Volume and types of residual generated on-site:

Water treatment plant residual (dry metric tons per 365-day period): NA

Food processing residual (dry metric tons per 365-day period): NA

Sewage sludge (dry metric tons per 365-day period): NA

Other: (describe: GAC, Filters, Metals Precipitation Sludge) (dry metric tons per 365-day period): See Form R, Attachment B

B7. Amount Received from Off Site.

NA

If your facility receives, or will receive, residual from another facility for treatment, use, or disposal, provide the following information for each facility from which residual is received. If you receive residual from more than one facility, attach additional pages as necessary.

a. Facility Name: _____

b. Contact Person: _____

Phone number: _____

c. Mailing address: _____

_____

_____

d. Facility address: _____

_____

_____

e. Total dry metric tons per 365-day period received from this facility: _____

f. Describe any treatment processes known to occur at the off-site facility, including dewatering, blending and treatment to reduce pathogens or vector attraction characteristics:

_____

_____

_____

B8. Treatment Provided at Your Facility.

a. What type of pathogen reduction is provided for residual at your facility?

_____Class A _____Class B __X__ None or unknown

b. Describe any treatment processes used at your facility to reduce pathogens in residual:

No Pathogens

_____

_____

_____

c. Is vector attraction reduction provided for residual at your facility?

_____ Yes __X__ No

B8. Treatment Provided at Your Facility (continued).

d. If yes, which vector attraction option is met for the residual at your facility?

_____ Option 1 (Minimum 38 percent reduction in volatile solids)

_____ Option 2 (Anaerobic process, with bench-scale demonstration)

_____ Option 3 (Aerobic process, with bench-scale demonstration)

_____ Option 4 (Specific oxygen uptake rate for aerobically digested residual)

_____ Option 5 (Aerobic processes plus raised temperature)

_____ Option 6 (Raise pH to 12 and retain at 11.5)

_____ Option 7 (75 percent solids with no unstabilized solids)

_____ Option 8 (90 percent solids with unstabilized solids)

_____ None or unknown

e. Describe any treatment processes used at your facility to reduce vector attraction properties of residual:

f. Describe any other residual treatment or blending activities not identified above (including dewatering):

Filter Press (HCTS) used for sludge dewatering;
Pressure Filtration (TCTS) used for solids dewatering.

B9. Preparation of Exceptional Quality Residual. NA

Complete Part B9 if residual from <u>your</u> facility meets the ceiling concentrations in Table 1 of 40 CFR 503.13, the pollutant concentrations in Table 3 of 40 CFR 503.13, the Class A pathogen reduction requirements in 40 CFR 503.32(a), and one of the vector attraction reduction requirements in 40 CFR 503.33(b)(1)-(8) and is land applied. Skip this part if residual from your facility does not meet all of these criteria.

a. Total dry metric tons per 365-day period of residual subject to this part that is applied to the land:

b. Is residual subject to this part placed in bags or other containers for sale or give-away for application to land?

_____ Yes _____ No

B10. Sale or Give-Away in a Bag or Other Container for Application to the Land. NA

Complete Part B10 if you place residual in a bag or other container for sale or give-away for land application.

a. Total dry metric tons per 365-day period of residual placed in a bag or other container at your facility for sale or give-away for application to the land:_____

B11. Shipment Off-Site for Treatment or Blending. See Form R, Attachment B

Complete Part B11 if residual from your facility is provided to another facility that provides treatment or blending. Skip this part if the residual is covered in Parts B9 or B10. If you provide residual to more than one facility, attach additional pages as necessary.

a. Name of receiving facility: See Attached

b. Facility Contact. Name: See Attached

Title: _____

Phone Number: (_____) _____

c. Facility mailing address:

Street or P.O. Box: See Attached

City or Town: _____ State: _____ Zip: _____

d. Total dry metric tons per 365-day period provided to this facility: See Attached

e. Does the receiving facility provide additional treatment to reduce pathogens in residual from your facility? _____Yes __X__No

Which class of pathogen reduction is achieved for the residual at the receiving facility?

_____ Class A _____ Class B _____ Pathogen-free or none

f. Describe any treatment processes used at the receiving facility to reduce pathogens in residual:

N/A

g. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the residual? _____ Yes _____X___ No

B11. Shipment Off-Site for Treatment or Blending (continued).

h. Which vector attraction reduction option is met for the residual at the receiving facility?

_____ Option 1 (Minimum 38 percent reduction in volatile solids)

_____ Option 2 (Anaerobic process, with bench-scale demonstration)

_____ Option 3 (Aerobic process, with bench-scale demonstration)

_____ Option 4 (Specific oxygen uptake rate for aerobically digested residual)

_____ Option 5 (Aerobic processes plus raised temperature)

_____ Option 6 (Raise pH to 12 and retain at 11.5)

_____ Option 7 (75 percent solids with no unstabilized solids)

_____ Option 8 (90 percent solids with unstabilized solids)

__X__ None or unknown

i. Describe any treatment processes used at the receiving facility to reduce vector attraction properties of residual:

Per receiving facility's permits.

j. Describe any other residual treatment or blending activities not identified above:

Per receiving facility's permits.

k. If you answered yes to any of the above, what information do you provide the receiving facility with to comply with the "notice and necessary information" requirement of 40 CFR 503.12(g).

N/A

l. Does the receiving facility place residual from your facility in a bag or other container for sale or give-away for application to the land?

_____ Yes __X__ No

If yes, provide a copy of all labels or notices that accompany the product being sold or given away.

B12. Land Application of Bulk Residual.

NA

Complete Part B12 if residual from your facility is applied to the land, unless the residual is covered in Parts B9, B10 or B11 above.

a. Total dry metric tons per 365-day period of residual applied to all land application sites: _____

b. Did you identify all land application sites in Part D of this application?

_____ Yes _____ No

If no, submit a copy of the notification plan with this application (see Part D).

c. Are any land application sites located in States other than New Jersey?

_____ Yes _____ No

If yes, describe how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.

B13. Surface Disposal.

NA

Complete Part B13 if residual from your facility is placed on a surface disposal site (monofill).

a. Total dry metric tons per 365-day period of residual placed on all surface disposal sites: _____

b. Do you own or operate all surface disposal sites to which you send residual?

_____ Yes _____ No

If no, answer the following for each surface disposal site that you do not own or operate (attach additional sheets as necessary).

c. Site Name: _____

d. Facility Contact. Name _____

Title: _____

Phone Number: (_____) _____

e. Facility mailing address:

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

f. Total dry metric tons per 365-day period of residual from your facility placed on this surface disposal site: _____

B14. Incineration.

Complete Part B14 if residual from your facility is fired in an incinerator.

a. Total dry metric tons per 365-day period of residual fired in an incinerator: 100 gallons per month (est.)

b. Do you own or operate all incinerators to which you send residual?

_____ Yes __X__ No

If no, answer the following for each incinerator that you do not own or operate (attach additional sheets as necessary).

c. Site Name: See Form R Attachment B for Facility Name, Address and Contact information.

b. Facility Contact. Name: _____

Title: _____

Phone Number: (_____) _____

c. Facility mailing address:

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

d. Total dry metric tons per 365-day period of residual from your facility fired at this incinerator:
100 gallons per month

B15. Disposal in a Municipal Solid Waste Landfill. NA

Complete Part B15 if residual from your facility is placed in a municipal solid waste landfill.

a. Total dry metric tons per 365-day period of residual placed in a municipal solid waste landfill:

_____

b. Do you own or operate all municipal solid waste landfills to which you send residual?

_____ Yes _____ No

If no, answer the following for each municipal solid waste landfill that you do not own or operate (attach additional sheets as necessary).

c. Site Name: _____

d. Facility Contact. Name: _____

Title: _____

Phone Number: (_____) _____

e. Facility mailing address:

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

f. Total dry metric tons per 365-day period of residual from your facility placed in this municipal solid waste landfill: _____

g. Submit, with this application, information necessary to determine whether the residual meets applicable requirements for disposal of residual in a municipal solid waste landfill (for example, results of paint filter liquid test and TCLP test).

PART C: ENVIRONMENTAL ASSESSMENT

NA

All applicants for a permit for residual use or disposal must submit an environmental assessment for the location where residual will be prepared to be applied to the land, the location where residual was placed on a surface disposal site, or the location of any other residual-only facility required to obtain a permit pursuant to N.J.A.C. 7:14A-20. The environmental assessment shall, at a minimum, address the following requirements:

C1. Facility Operations.

NA

a. Provide a written description of facility operations, including methods of residual handling, facility layout (attach facility map), and use or disposal of any end products.

_____

_____

_____

_____

b. Volume and types of residual to be handled:

Sewage Sludge (dry metric tons per 365-day period): _____

Food processing residual (dry metric tons per 365-day period): _____

Water treatment residual (dry metric tons per 365-day period): _____

Other: (describe:_____)(dry metric tons per 365-day period): _____

C2. Environmental Impact and Local Land Use Evaluation.

NA

1. Provide an analysis of the impact that the proposed treatment works treating domestic sewage or residual only facility will have on local transportation patterns, drainage and soil characteristics, surface and ground water quality, endangered or threatened wildlife and vegetation, storm water and wastewater collection/treatment capability, water supply capability, ambient acoustical conditions and air quality. Refer to Section 2 of the Bureau of Pretreatment and Residual's Technical Manual for Residual Permits for guidance on completion of the Environmental Assessment.

2. Attach a description on how the proposed operation will conform or conflict with the objectives of any applicable Federal, State, or local land use and/or environmental requirements for areas within two miles of the perimeter of a proposed large facility (residual production equal to or greater than 15,000 metric tons per 365 day period), or within one mile of the perimeter of a proposed small facility (residual production less than 15,000 metric tons per 365 day period). Refer to Section 2 of the Bureau of Pretreatment and Residual's Technical Manual for Residuals Permits for guidance on completion of the Environmental Assessment.

PART D: LAND APPLICATION NA

All applicants for a NJPDES permit to prepare residual for land application shall submit the following, unless the text clearly indicates otherwise.

D1. Residual Information. NA

Information on the characteristics of each residual proposed to be applied, to the extent known at the time that the permit application is submitted, including:

a. Is all residual to be prepared for land application generated on-site?

_____ Yes _____ No

If no, describe here the method for transporting the residual from the site of generation to the site of treatment. In addition, attach a map of transportation routes to be used in transporting residuals:

_____

_____

_____

b. List here the origin and quantity (in dry metric tons per 365 day period) of each residual to be processed. For each residual to be processed from off-site sources estimate the approximate number of round trips made per day:

ORIGIN	NJPDES #	QUANTITY	ROUND TRIPS

c. A dated analysis of each residual on a mg/kg dry weight basis (or other unit as specified), at a minimum, for the following constituents:

- Total Solids (% by weight)
- pH (standard units)
- Total Kjeldahl Nitrogen (TKN)
- Ammonia-Nitrogen (NH_4-N)
- Nitrate-Nitrogen (NO_3-N)
- Calcium (Ca)
- Potassium (K)
- Phosphorus (P)
- Arsenic
- Cadmium
- Copper
- Lead
- Mercury
- Molybdenum
- Nickel
- Selenium
- Zinc

d. A summary of all data submitted under the Sludge Quality Assurance Regulations (SQAR), N.J.A.C. 7:14-4, for the previous 12-month period;

e. Additional quality analyses (including characteristics pursuant to N.J.A.C. 7:26G) may be required by the Department after evaluation of past SQAR reports or other relevant information, such as information on industrial discharges which might contribute constituents not normally evaluated under the SQAR program or which may exceed levels identified in USEPA's Technical Support Document for Land Application of Sewage Sludge, EPA 822/R-93-001a and 001b, November 1992.

D1. Residual Information (continued).

NA

f. For residuals generated at industrial treatment works, describe below all industrial processes which generate residual intended to be land applied, including a listing of all raw materials undergoing processing, and all physical and/or chemical additives introduced:

_____

_____

_____

_____

D2. Evaluation for non-domestic residual.

NA

For the land application of residuals other than sewage sludge, water treatment plant residual, or food processing residual, the applicant must submit a detailed report which demonstrates the following:

a. That the land application of the residual will benefit soil physical properties, soil fertility and/or cover vegetation;

b. An understanding of the impacts of the residual on soil fertility, soil physical properties and plant growth; and

c. That the land application of a particular residual has a scientific basis and has been successfully tested or demonstrated in a field application or pilot program.

D3. Topographic Map.

NA

Provide a topographic map that shows the following items of information. Map(s) must include the area one mile beyond all property boundaries of the facility.

a. Location of all residual treatment, storage, or disposal facilities, including land application sites and locations where residual is generated, treated or disposed in the map area;

b. Location of all surface water bodies in the map area;

c. Location of all wells used for drinking water listed in public records or otherwise known to the applicant in the map area.

FACILITY NAME: SCCC and Diamond Sites NJPDES PERMIT NO.:_____ FORM R - 14
(new applicants leave blank) Rev. 04/23/98

D4. Land Application Program and Process Information. NA

Refer to Appendices A through C in the Bureau of Pretreatment and Residual's Technical Manual to determine the quality requirement, pathogen reduction requirement, and vector attraction reduction requirement applicable to your facility. Circle each of the applicable requirements in the table below. The program where all three requirements are circled is the one applicable for your facility. See the program description in the BPR's technical manual for further information.

PROGRAM	Quality Requirements Appendix A	Pathogen Reduction Requirements Appendix B	VAR Requirements Appendix C
Program 1	Column 2	Class A	(1)-(8)
Program 2	Column 2	Class A	(9) or (10)
Program 3	Column 2	Class B	Any
Program 4	Column 1	Class A	(1)-(8)
Program 5	Column 1	Class A	(9) or (10)
Program 6	Column 1	Class B	Any

a. Which pathogen reduction alternative is intended to be met for the residual at your facility?

_____ Class A/Alternative 1 (Thermally treated residual, specify 1A, 1B, 1C, or 1D from 40 CFR 503)
_____ Class A/Alternative 2 (Residuals treated in a High pH – High temperature process)
_____ Class A/Alternative 3 (Residuals treated in other known processes)
_____ Class A/Alternative 4 (Residuals treated in unknown processes)
_____ Class A/Alternative 5 (Residuals treated in a PFRP)
_____ Class A/Alternative 6 (Residuals treated in a process equivalent to a PFRP)
_____ Class B/Alternative 1 (Monitoring of indicator organisms)
_____ Class B/Alternative 2 (Residuals treated in PSRP)
_____ Class B/Alternative 3 (Residuals treated in a process equivalent to a PSRP)
_____ Pathogen-free, none or unknown

b. Describe, in detail, the treatment processes used at your facility to reduce pathogens in residual (attach additional sheets as necessary):

_____
_____
_____

D4. Land Application Program and Process Information (continued). NA

c. Describe how information to demonstrate compliance with pathogen reduction requirements will be obtained, where samples to demonstrate compliance will be taken, and how records will be kept (attach additional sheets as necessary):

_____

_____

_____

d. Are any vector attraction reduction requirements met when residual is applied to the land application site?

_____ Yes _____ No

If yes, indicate which vector attraction reduction option is met:

_____ Option 9 (injection below land surface)

_____ Option 10 (incorporation into soil within 6 hours)

e. Describe, in detail, the treatment processes used at your facility for vector attraction reduction (attach additional sheets as necessary):

_____

_____

_____

f. Describe how information to demonstrate compliance with vector attraction reduction requirements will be obtained, where samples to demonstrate compliance will be taken, and how records will be kept (attach additional sheets as necessary):

_____

_____

_____

g. Describe the mode of transporting the product to distribution sites:

_____

_____

_____

h. How long will the final product be stored on-site prior to ultimate management?

Average operation: _____ days

Peak operation: _____ days

For each new structure used to store marketable residual product at the processing facility, submit an "Engineer's Certification of Proper Design for Residual Storage Installations" (See the Bureau of Pretreatment and Residuals Technical Manual for Residuals Management - Appendix I). Note: storage installations used to store residual which has not been processed, or which is not a marketable residual product are required to receive a Treatment Works Approval pursuant to N.J.A.C. 7:14A-22 and –23.

D4. Land Application Program and Process Information (continued). NA

i. Describe all process additives, including quantity required, source, trade names, and chemical analysis where available (for example, wood chips, oil, alkaline source etc.):

_____

_____

_____

_____

j. Attach a descriptive statement of the process used and operation of the proposed facility. Within this format, provide a description and detailed specifications of all process steps (including but not limited to residual delivery, storage, mixing, stabilization method, curing, screening) and the related equipment, pollution control systems, instrumentation and monitoring mechanisms. Within the context of the system description, identify the mix ratio of additives to residual.

k. Provide a comprehensive materials balance for the proposed system/operation. The materials balance shall account for every handling and processing step starting from residual delivery to the facility and ending with final product removal from the site.

D5. Identification of Land Application Sites. NA

For bulk residual which does not satisfy the pollutant concentrations in 40 CFR 503.13(b)(3), the Class A pathogen requirements in 40 CFR 503.32(a), or one of the vector attraction reduction options in 40 CFR 503.33(b)(1) through (b)(8) (that is, a program 2 through 6 residual identified above), for each residual land application site identified at the time of permit application, the applicant shall, supply information necessary to determine if the site is appropriate for land application and a description of how the site is or will be managed. Identify each residual land application site known at the time of permit application below. In addition LLAMA application forms 1 through 4 must be submitted for each residual land application site.

a. Site name or number: _____

b. Site location:

Street or Route Number: _____

County: _____ Lot: _____ Block: _____

City or Town: _____ State: _____ Zip: _____

c. Are any groundwater monitoring data available for this land application site?

_____ Yes _____ No

If yes, submit a summary of the ground water monitoring data with this permit application. Also provide a written description of the well locations, approximate depth to groundwater, and the groundwater monitoring procedures used to obtain the data.

_____

_____

_____

D6. Notification Plan.

NA

For bulk residual which does not satisfy the pollutant concentrations in 40 CFR 503.13(b)(3), the Class A pathogen requirements in 40 CFR 503.32(a), or one of the vector attraction reduction options in 40 CFR 503.33(b)(1) through (b)(8) (that is, a program 2 through 6 residual identified above), where proposed residual land application sites are not identified at the time of permit application, the applicant shall submit a notification plan for the Department's approval which at a minimum:

a. Describe the geographical area covered by the plan:

_____

_____

b. Describe the form of advance public notice which, at a minimum, will be supplied to all landowners and occupants adjacent to or abutting a proposed residual land application site. This requirement may be satisfied through public notice in a newspaper of local circulation. Notice shall include, at a minimum, the name and address of the permittee, the name and address of the proposed residual land application site, a description of the activities that are proposed to occur at the residual land application site, and the name and address of the Bureau within the Department to which the permittee must submit an application for a Letter of Land Application Management Approval (See LLAMA Application Forms):

_____

_____

_____

D7. Exceptional Quality or Residual Sold or Given Away In a Bag or Other Container.

For bulk residual which meets the ceiling concentrations in Table 1 of 40 CFR 503.13, the pollutant concentrations in Table 3 of 40 CFR 503.13, the Class A pathogen requirements in 40 CFR 503.32(a), and one of the vector attraction reduction options in 40 CFR 503.33(b)(1) through (b)(8), or for any residual which is sold or given away in a bag or other container, the applicant shall:

a. Provide documentation that the residual product has been, or will be, licensed by the New Jersey Department of Agriculture pursuant to the New Jersey Commercial Fertilizer and Soil Conditioner Act, N.J.S.A. 4:9-15.1 et seq., or the New Jersey Agricultural Liming Materials Act, N.J.S.A. 4:9-21.1 et seq.

b. Provide a copy of the label or instructional literature that will be used to conform to the labeling requirements established by the New Jersey Department of Agriculture pursuant to the New Jersey Commercial Fertilizer and Soil Conditioner Act, N.J.S.A. 4:9-15.1 et seq., the New Jersey Agricultural Liming Materials Act, N.J.S.A. 4:9-21.1 et seq., and/or the Bureau of Pretreatment and Residuals Technical Manual for Residuals Management (see Section 5).

c. Provide below, or attach additional sheets as necessary, information to demonstrate optimal marketable residual product characteristics, including temperature, total solids and odor characteristics. Include a listing of existing operational facilities of the type proposed:

_____

_____

_____

_____

PART E. SURFACE DISPOSAL

NA

Complete this part only if you own or operate a residual surface disposal site.

E1. Information on Residual Units

NA

a. Unit name or number: _____

b. Unit location: _____

_____

c. Total dry metric tons of residual placed on the active residual unit per 365-day period:

_____

d. Total dry metric tons of residual placed on the active unit over the life of the unit:

_____

e. Does the active residual unit have a liner with a maximum hydraulic conductivity of 1 X 10^{-7} cm/sec?

_____ Yes _____ No

f. If yes, describe the liner (or attach a description):

_____

_____

_____

g. Does the active residual unit have a leachate collection system?

_____ Yes _____ No

If yes, describe the leachate collection system. Also describe the method used for leachate disposal:

_____

_____

_____

h. If you answered no to either E.1.e or E.1.g., answer the following question:

Is the boundary of the residual unit less than 150 meters from the property line of the surface disposal site? _____ Yes _____ No

If yes, provide the actual distance in meters: _____

i. Remaining capacity of active residual unit in dry metric tons: _____

j. Anticipated or actual closure date for the residual unit: _____

k. Provide a copy of any closure plan that has been developed for this active residual unit. A surface disposal site closure plan shall include the information in E5 below.

E2. Topographic Map.

NA

Provide a topographic map that shows the following items of information. Map(s) must include the area one mile beyond all property boundaries of the facility.

a. Location of all residual treatment, storage, or disposal facilities, including land application sites and locations where residual is generated, treated or disposed in the map area;

b. Location of all surface water bodies in the map area;

c. Location of all wells used for drinking water listed in public records or otherwise known to the applicant in the map area.

E3. Residual from other facilities

NA

a. Is residual sent to this active residual unit from any other facilities other than your facility?

_____ Yes _____ No

If yes, provide the following information for each facility. If residual is sent to this active residual unit from more than one such facility, attach additional pages as necessary.

Facility Name: _____

Contact Person: _____ Phone number: (_____) _____

Mailing address: _____

_____

_____

b. Which class of pathogen reduction is achieved before residual leaves the other facility?

_____ Class A _____ Class B _____ Pathogen-free or none

c. Describe any treatment processes used at the other facility to reduce pathogens in residual:

_____

_____

_____

d. Which vector attraction option is achieved before residual leaves the other facility?

_____ Option 1 (Minimum 38 percent reduction in volatile solids)

_____ Option 2 (Anaerobic process, with bench-scale demonstration)

_____ Option 3 (Aerobic process, with bench-scale demonstration)

_____ Option 4 (Specific oxygen uptake rate for aerobically digested residual)

_____ Option 5 (Aerobic processes plus raised temperature)

_____ Option 6 (Raise pH to 12 and retain at 11.5)

_____ Option 7 (75 percent solids with no unstabilized solids)

_____ Option 8 (90 percent solids with unstabilized solids)

_____ None or unknown

E3. Residual from other facilities (continued). NA

e. Describe any treatment processes used at the other facility to reduce vector attraction properties of residual:

_____

_____

_____

f. Describe any other residual treatment activities performed by the other facility not identified above:

_____

_____

_____

E4. Vector Attraction Reduction. NA

a. Other than the vector attraction reduction options listed in Part B, which vector attraction reduction option below, if any, is met when residual is placed on the active residual unit?

_____ Option 9 (Injection below land surface)

_____ Option 10 (Incorporation into soil within 6 hours)

_____ Option 11 (Covering active residual unit daily)

b. Describe, on this form or another sheet of paper, any treatment processes used at the active residual unit to reduce vector attraction properties of residual:

_____

_____

_____

E5. Surface disposal site closure plan. NA

a. Approximate date discharge to the surface disposal site ceased: _____

b. A description of the surface disposal site including:

approximate acreage: _____

lateral and vertical extent: _____

The origin and volume of the residual remaining in the surface disposal site: _____

_____

_____

E5. Surface disposal site closure plan (continued). NA

c. Dated quality analyses of the residual on a mg/kg dry weight basis including analyses of all constituents required to be analyzed in accordance with the Sludge Quality Assurance Regulations (SQAR), N.J.A.C. 7:14-4. The number of samples required to be analyzed shall be based on a statistical method as described in the Department's Field Sampling Procedures Manual, or as otherwise approved by the Department.

Additional quality analyses may be required if deemed necessary by the Department through evaluation of past SQAR reports or other relevant information, such as information on industrial discharges which might contribute constituents not normally evaluated under the SQAR program.

d. Explain how pathogen requirements or vector attraction reduction requirements were achieved:

e. Describe the proposed method of closure, including plans for the removal and/or in-situ closure of the residual remaining at the surface disposal site, and an implementation schedule for each component of the closure plan:

For in-situ closure proposals, the following information:

a. Is the closed surface disposal site located in a floodplain, or can the closed surface disposal site restrict the flow of a base flood? If yes, describe:

b. Is the closed surface disposal site located in an unstable area? If yes, describe:

c. Does the surface disposal site have a liner and/or leachate collection system?

_____ Liner only _____ Leachate collection only _____ Both _____ None

If the surface disposal site has a liner and/or leachate collection system, describe how the leachate collection system will be operated and maintained for a minimum of five years and/or describe the liner:

E5. Surface disposal site closure plan (continued). NA

d. If a cover is to be placed over the closed surface disposal site, provide a description of the system used to monitor for methane gas in the air in any structures within the surface disposal site and in the air at the property line of the surface disposal site for a minimum of five years:

e. Describe how public access to the surface disposal site will be restricted for a minimum of five years:

f. Provide a calculation of the surface run-off across the surface disposal site using a 24-hour, 25-year storm event with estimates of the effect of such run-off on treatment capacity, storage capacity, erosion, flooding, impacts on surface water quality and related details:

g. Attach a copy of the detailed description of the surface disposal site recorded, along with the deed, with the appropriate county recording office.

h. Attach a Soil Erosion and Sediment Control Plan certified or approved in accordance with the Soil Erosion and Sediment Control Act (N.J.S.A. 4:24-39 et seq.), unless such planning is determined inapplicable by an agency with concurrent jurisdiction.

E6. Ground Water Monitoring. NA

a. Is ground water monitoring currently conducted at the active or closed residual unit?

_____ Yes _____ No

If yes, submit a summary of ground water monitoring data with this permit application. Also, submit information on well construction, a written description of the well locations, approximate depth to ground water, and the ground water monitoring procedures used to obtain these data.

b. Has a ground water monitoring program been prepared for the active or closed residual unit?

_____ Yes _____ No

If yes, submit a copy of the ground water monitoring program with this permit application.

PART F: OUT-OF-STATE GENERATORS NA

Please be advised that distribution or land application of an out-of-state Marketable Residual Product in New Jersey requires issuance of a NJDEP approval, which may include issuance of a NJPDES permit, in accordance with N.J.A.C. 7:14A-20.7(l). Out-of-state generators which transport residual into the State of New Jersey to be applied to the land shall, at a minimum, submit the following.

F1. Additional Information. NA

Out-of-state generators which transport residual into the State of New Jersey to be applied to the land shall, at a minimum, submit the following additional notice requirements:

a. Information as required to be submitted pursuant to Parts A, B and D above, and Part I below, as applicable.

b. Copies of those permits and approvals issued by the permitting authority for the state in which the residual is prepared.

c. Permitting authority information for the state in which the residual is prepared:

Name: _____

Title: _____

Phone: ( ) _____

d. List any brand names under which the marketable residual product will be distributed:

_____

e. The approximate time period during which bulk residual will be applied to each residual land application site identified in Part D above: _____

PART G: RESIDUAL TRANSFER STATIONS NA

Complete this part only if you own or operate a residual transfer station.

G1. Residual Information. NA

Information on the characteristics of each residual received, to the extent known at the time that the permit application is submitted, including:

a. Describe here the method for transporting the residual from the site of generation to the residual transfer station. In addition, attach a map of transportation routes to be used in transporting residuals:

_____

_____

_____

b. List here the origin and quantity (in dry metric tons per 365 day period) of each residual to be processed. For each residual to be processed estimate the approximate number of round trips made per day:

ORIGIN	NJPDES #	QUANTITY	ROUND TRIPS

c. A summary of all data submitted under the Sludge Quality Assurance Regulations (SQAR), N.J.A.C. 7:14-4, for the previous twelve month period;

d. Additional quality analyses (including characteristics pursuant to N.J.A.C. 7:26G) may be required by the Department after evaluation of past SQAR reports or other relevant information, such as information on industrial discharges which might contribute constituents not normally evaluated under the SQAR program or which may exceed levels identified in USEPA's Technical Support Document for the ultimate management alternative used by the transfer station.

e. Describe the mode of transporting residual from the transfer station to the ultimate management site:

_____

_____

_____

f. How long will residual be stored on-site prior to ultimate management?

Average operation: _____ days

Peak operation: _____ days

Note: storage installations used to store residual are required to obtain a Treatment Works Approval pursuant to N.J.A.C. 7:14A-22 and –23.

G1. Residual Information (continued).

NA

g. Describe all process additives, including quantity required, source, trade names, and chemical analysis where available:

h. Attach a descriptive statement of the process used and operation of the proposed facility. Within this format, provide a description and detailed specifications of all process steps (including but not limited to residual delivery, storage, mixing, dewatering, and any stabilization method) and the related equipment, pollution control systems, instrumentation and monitoring mechanisms.

i. Provide a comprehensive materials balance for the proposed system/operation. The materials balance shall account for every handling and processing step starting from residual delivery to the facility and ending with final removal of residual from the site.

G2. Topographic Map.

Provide a topographic map that shows the following items of information. Map(s) must include the area one mile beyond all property boundaries of the facility.

NA

a. Location of all residual treatment, storage, or disposal facilities, including land application sites and locations where residual is generated, treated or disposed in the map area;

b. Location of all surface water bodies in the map area;

c. Location of all wells used for drinking water listed in public records or otherwise known to the applicant in the map area.

PART H. REED BEDS

NA

Complete this part only if you own or operate a reed bed.

H1. Information on Active Residual Units

NA

a. Number of residual units or drying beds: _____

b. Unit name or number: Bed # __ _____ size: _____ square feet
Bed # __ _____ size: _____ square feet
Bed # __ _____ size: _____ square feet
Bed # __ _____ size: _____ square feet
Bed # __ _____ size: _____ square feet
Bed # __ _____ size: _____ square feet
Bed # __ _____ size: _____ square feet
Bed # __ _____ size: _____ square feet
Bed # __ _____ size: _____ square feet
Bed # __ _____ size: _____ square feet
Bed # __ _____ size: _____ square feet

c. Total gallons of residual placed on the active residual units per 365-day period: _____

d. Average total solids of residual: _____%

e. Loading (divide item c by total square feet in item b): _____ gallons per sq. ft. per year

f. Type of residual(s) to be loaded: Aerobic _____ Anaerobic _____
Alum _____ Primary _____
Other _____ (describe:_____)

g. Does the active residual unit have a liner with a maximum hydraulic conductivity of 1 X 10^{-7} cm/sec?
_____ Yes _____ No
If yes, describe the liner (or attach a description):
_____
_____
_____

h. Does the active residual unit have a leachate collection system?
_____ Yes _____ No
If yes, describe the leachate collection system. Also describe the method used for leachate disposal:
_____
_____
_____

H1. Information on Active Residual Units (continued) NA

i. If you answered no to either H.1.f or H.1.g., answer the following question:

Is the boundary of the residual unit less than 150 meters from the property line of the surface disposal site? _____ Yes _____ No

If yes, provide the actual distance in meters: _____

j. Anticipated next evacuation or closure date for active residual unit, if known: _____

k. Provide a copy of any evacuation or closure plan that has been developed for this active residual unit.

H2. Topographic Map. NA

Provide a topographic map that shows the following items of information. Map(s) must include the area one mile beyond all property boundaries of the facility.

a. Location of all residual treatment, storage, or disposal facilities, including land application sites and locations where residual is generated, treated or disposed in the map area;

b. Location of all surface water bodies in the map area.

FACILITY NAME: SCCC and Diamond Sites NJPDES PERMIT NO.: _____ (new applicants leave blank) FORM R - 28 Rev. 04/23/98

PART I: CERTIFICATION

Read and submit the following certification statement with this application.

Indicate which parts of Form R you have completed and are submitting:

X ☒ Part A (General Information)

X ☒ Part B (Generation of residual or preparation of a material derived from residual)

☐ Part C (Environmental Assessment)

☐ Part D (Land Application)

☐ Part E (Surface Disposal)

☐ Part F (Out-of-state Generators)

☐ Part G (Residual Transfer Stations)

☐ Part H (Reed Beds)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with the system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for purposely, knowingly, recklessly, or negligently submitting false information.

Signature of Officer: Peter W Sawchuck

Name of Officer: (type or print) Peter W. Sawchuck

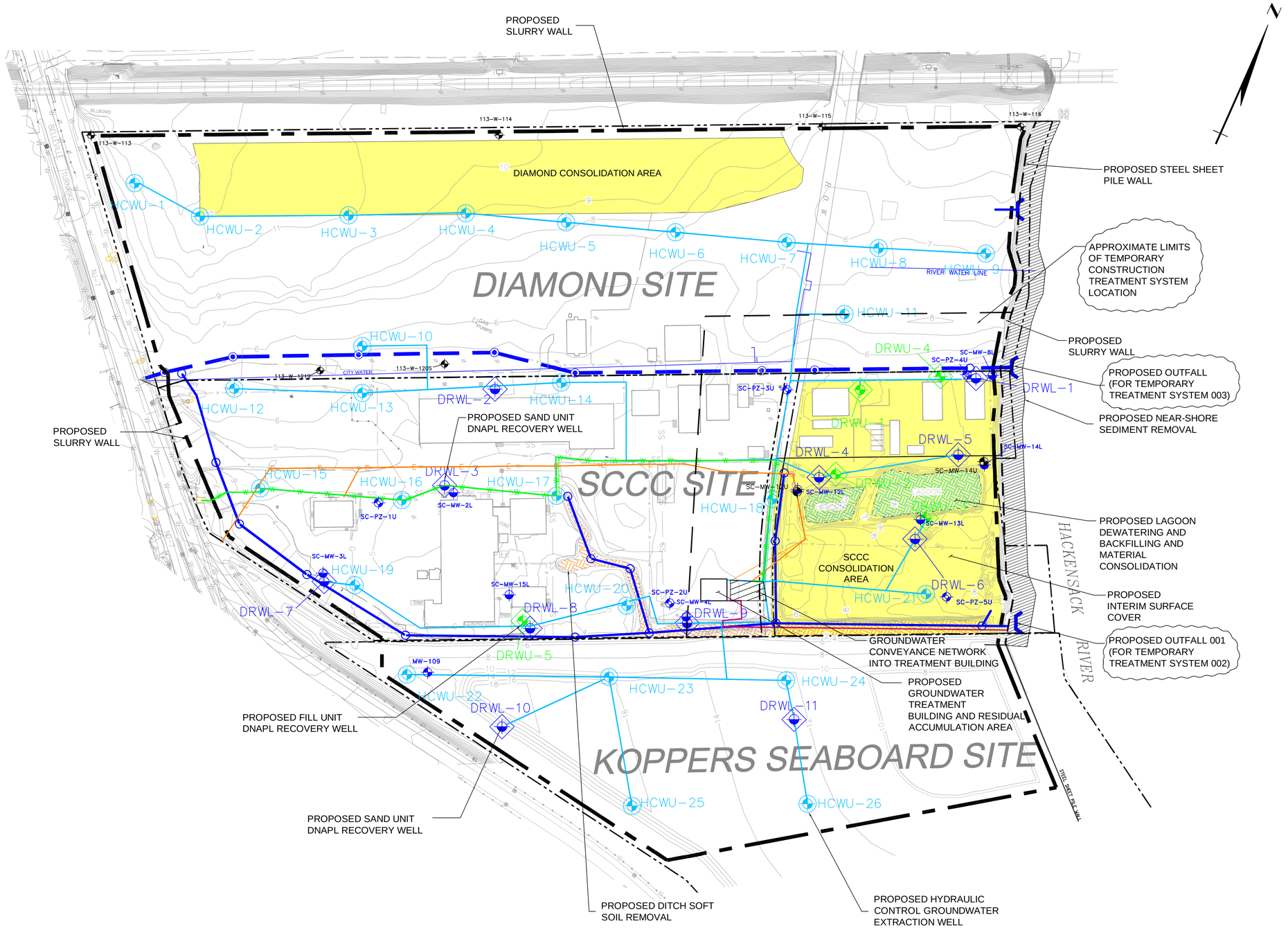
Official Title: Vice President, Key Environmental, Inc.

Telephone Number: (908) 534-4501, (207)772-8100

Date Signed: 10 / 08 / 09

Form R - attachment A

Form R
Form R – Items B2, B3



LEGEND

- EXISTING ACCESS ROAD
- EXISTING NEW JERSEY TRANSIT RAILROAD (ACTIVE)
- EXISTING FENCE
- EXISTING STRUCTURES
- EXISTING UTILITY POLES
- EXISTING LIGHT STANDARD
- STORM — EXISTING STORM DRAIN
- SS — EXISTING STORM SEWER
- G — G — EXISTING GAS LINE
- PROPERTY BOUNDARY
- EXISTING CONCRETE PAD
- EXISTING GROUND SURFACE ELEVATION CONTOURS
- EXISTING VEGETATION
- EXISTING STREAM, POND AND RIVER BANK
- EXISTING ELEVATION (FEET–MSL)
- PROPOSED SLURRY WALL LOCATION
- PROPOSED STEEL SHEET PILE WALL LOCATION
- PROPOSED GROUNDWATER CONVEYANCE PIPING TRENCH ALIGNMENT
- PROPOSED FILL UNIT GROUNDWATER EXTRACTION (HYDRAULIC CONTROL) WELL LOCATION
- PROPOSED FILL UNIT DNAPL RECOVERY WELL LOCATION
- PROPOSED SAND UNIT DNAPL RECOVERY WELL LOCATION
- PROPOSED LAGOON DEWATERING AND BACKFILLING
- PROPOSED NEAR–SHORE SEDIMENT REMOVAL
- PROPOSED DRAINAGE DITCH REMEDIATION (EXCAVATION AND BACKFILL)
- PROPOSED INTERIM SURFACE COVER
- PROPOSED TREATED WATER PERMITTED DISCHARGE
- EXISTING STORM DRAIN (48" PIPE)
- PROPOSED CULVERT(S)
- EXISTING DROP INLET
- PROPOSED DROP INLET
- PROPOSED CULVERT OUTFALL
- E — PROPOSED POWER AND PHONE LINES (OVERHEAD)
- W — PROPOSED WATER LINE TO TREATMENT BUILDING

0 120 240 FEET

REV #	DATE	DESCRIPTION	APPD
1			
2			
3			

REFERENCE: EXISTING GROUND SURFACE CONTOURS PER AIR SURVEY, DULLES, VIRGINIA, APRIL 14, 2001. HORIZONTAL REFERENCE: NEW JERSEY STATE PLANE COORDINATES (NAD 1927). VERTICAL REFERENCE: NATIONAL GEODETIC VERTICAL DATUM (NGVD 1929).

ISSUE DATE:

KEY ENVIRONMENTAL, INC.
200 THIRD AVENUE
CARNEGIE, PA 15106

SCCC, INC. AND TIERRA SOLUTIONS INC.

DRWN: SCC	DATE: 08/24/09
CHKD: JAB	DATE: 08/24/09
APPD: PWS	DATE: 08/24/09
SCALE:	1"= 2000'

KEY ENVIRONMENTAL INCORPORATED

DISCHARGE TO SURFACE WATER PERMIT APPLICATION
CATEGORY BGR – GENERAL REMEDIATION
DISCHARGE PERMIT AUTHORIZATION
SCCC INC. AND DIAMOND SITES
KEARNY, NEW JERSEY

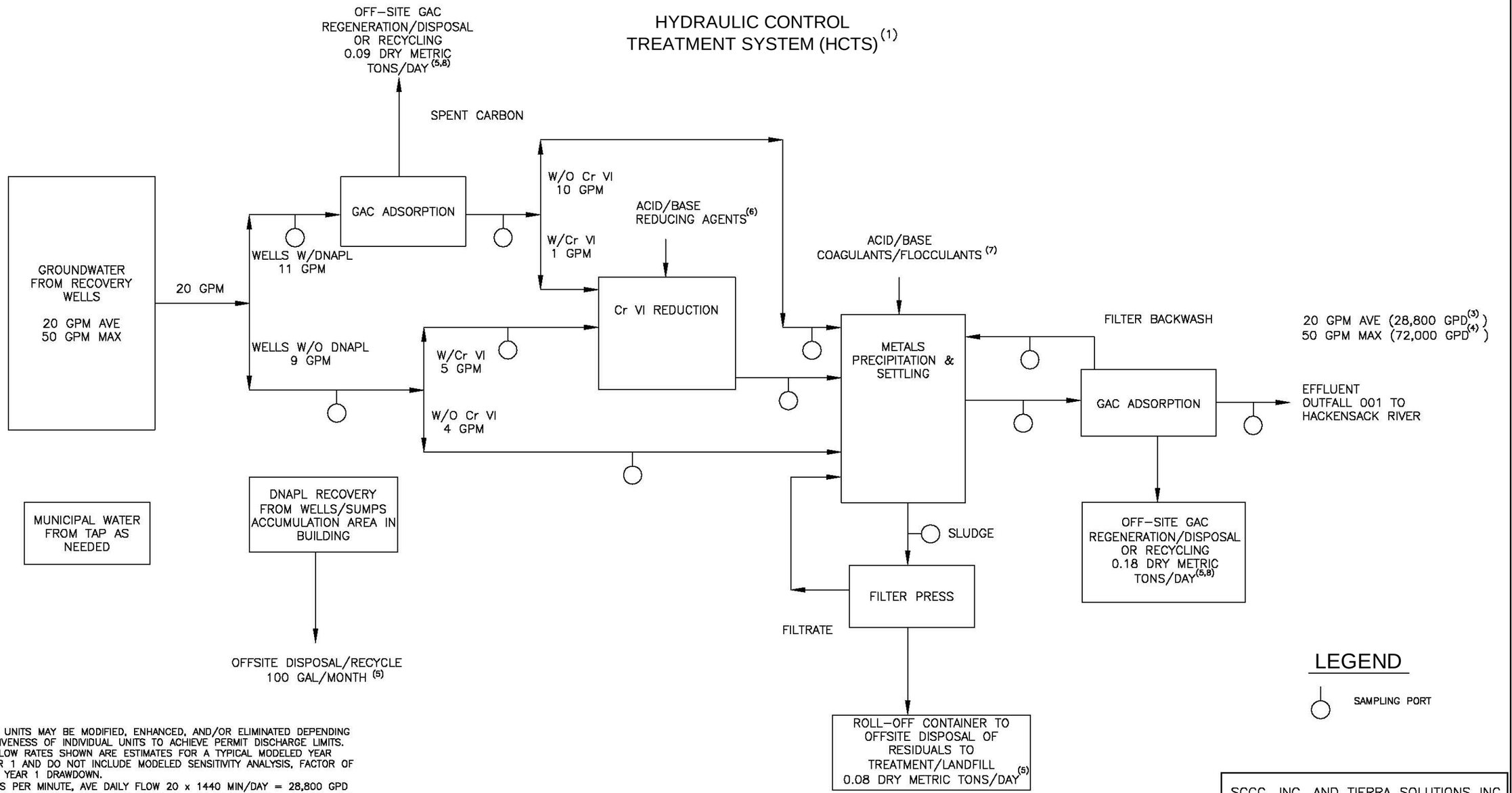
FACILITY DIAGRAM

PROJECT NO: 09–803/804

FIGURE 1

y:\00civil\kearny\ira design\production drawings\discharge to surface water permit application\figure 1 – facility diagram.dwg Last Saved By: Scomer 10/8/2009 1:53 PM Plotted By: Shelly Comer 10/8/2009 1:54 PM Scale: 1:1

HYDRAULIC CONTROL TREATMENT SYSTEM (HCTS) (1)



LEGEND

SAMPLING PORT

NOTES:

1. TREATMENT UNITS MAY BE MODIFIED, ENHANCED, AND/OR ELIMINATED DEPENDING ON EFFECTIVENESS OF INDIVIDUAL UNITS TO ACHIEVE PERMIT DISCHARGE LIMITS.
2. AVERAGE FLOW RATES SHOWN ARE ESTIMATES FOR A TYPICAL MODELED YEAR AFTER YEAR 1 AND DO NOT INCLUDE MODELED SENSITIVITY ANALYSIS, FACTOR OF SAFETY OR YEAR 1 DRAWDOWN.
3. 20 GALLONS PER MINUTE, AVE DAILY FLOW 20 x 1440 MIN/DAY = 28,800 GPD
4. 50 GALLONS PER MINUTE, MAX DAILY FLOW 50 x 1440 MIN/DAY = 72,000 GPD
5. RESIDUALS – ESTIMATED AMOUNTS, ACTUAL QUANTITIES MAY VARY. RESIDUALS WILL BE HANDLED AS NON–HAZARDOUS OR HAZARDOUS WASTE, DEPENDING ON CHARACTERIZATION RESULTS.
6. FERROUS SULFATE AND SODIUM SULFIDE ADDED TO REDUCE CHROMIUM FROM THE HEXAVALENT TO TRIVALENT FORM.
7. CATIONIC AND ANIONIC POLYMERS, AND/OR FLOCCULATION AID, SUCH AS FERRIC CHLORIDE, FOR COAGULATION AND FLOCCULATION.
8. GAC TRANSPORTED OFFSITE FOR RECYCLE, REGENERATION OR DISPOSAL.

GPM = GALLONS PER MINUTE
GPD = GALLONS PER DAY
GAC = GRANULAR ACTIVATED CARBON
DNAPL = DENSE NON–AQUEOUS PHASE LIQUID
Cr VI = HEXAVALENT CHROMIUM

REV #	DATE	DESCRIPTION	APPD
1			
2			
3			

REFERENCE:

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200 THIRD AVENUE
CARNEGIE, PA 15106

SCCC, INC. AND TIERRA SOLUTIONS INC.

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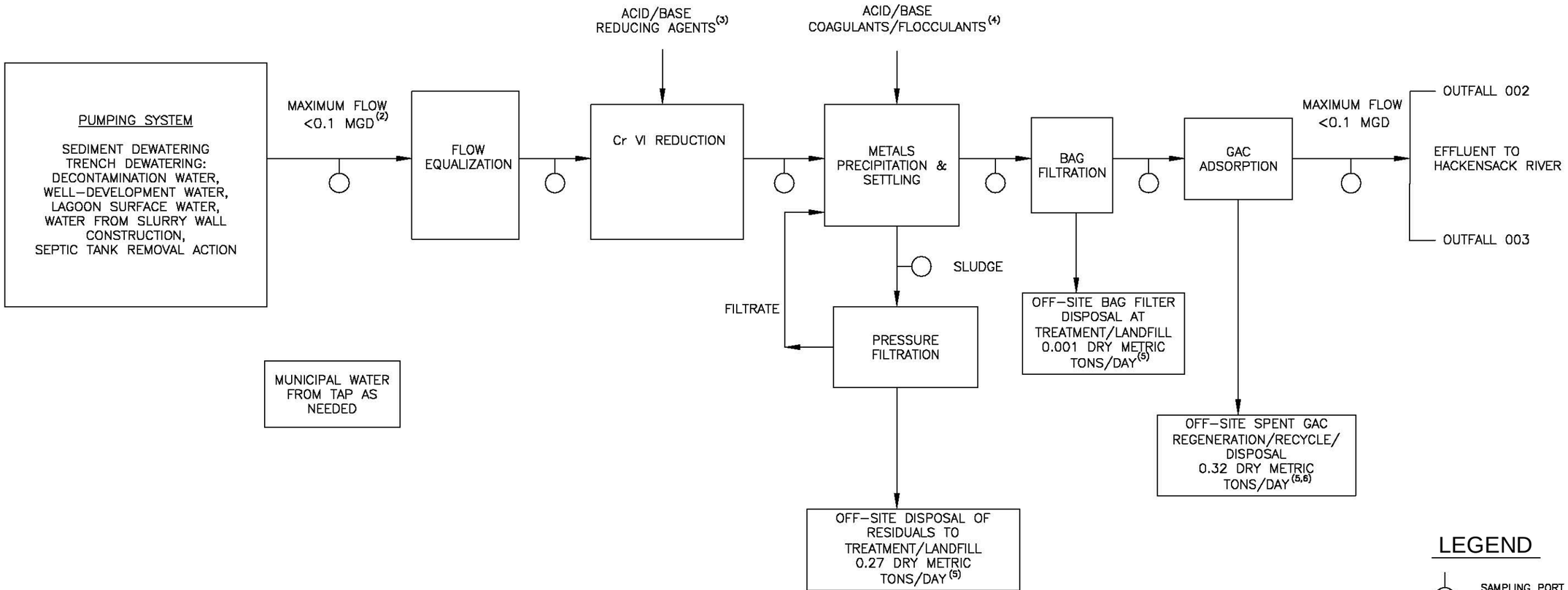
SCALE: AS SHOWN			

DISCHARGE TO SURFACE WATER PERMIT APPLICATION
CATEGORY BGR – GENERAL REMEDIATION
DISCHARGE PERMIT AUTHORIZATION
SCCC INC. AND DIAMOND SITES
KEARNY, NEW JERSEY

LINE DRAWING
HYDRAULIC CONTROL
TREATMENT SYSTEM

PROJECT NO09–803/804
FIGURE 2

TEMPORARY CONSTRUCTION TREATMENT SYSTEM (TCTS)[1]



NOTES:

1. TREATMENT UNITS MAY BE MODIFIED, ENHANCED, AND/OR ELIMINATED DEPENDING ON EFFECTIVENESS OF INDIVIDUAL UNITS TO ACHIEVE PERMIT DISCHARGE LIMITS.
2. MAXIMUM DAILY FLOW LESS THAN 0.1 MGD.
3. FERROUS SULFATE AND SODIUM SULFIDE ADDED TO REDUCE CHROMIUM FROM THE HEXAVALENT TO TRIVALENT FORM.
4. CATIONIC AND ANIONIC POLYMERS, AND/OR FLOCCULATION AID, SUCH AS FERRIC CHLORIDE, FOR COAGULATION AND FLOCCULATION.
5. RESIDUAL–ESTIMATED AMOUNT, ACTUAL QUANTITIES MAY VARY. RESIDUALS WILL BE HANDLED AS NON–HAZARDOUS OR HAZARDOUS WASTE, DEPENDING ON CHARACTERIZATION RESULTS.
6. GAC TRANSPORTED OFFSITE FOR RECYCLE, REGENERATION OR DISPOSAL

GPM = GALLONS PER MINUTE
GPD = GALLONS PER DAY
GAC = GRANULAR ACTIVATED CARBON
DNAPL = DENSE NON–AQUEOUS PHASE LIQUID
Cr VI = HEXAVALENT CHROMIUM

REV #	DATE	DESCRIPTION	APPD
1			
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REFERENCE:

ISSUE DATE:

KEY ENVIRONMENTAL, INC.
200 THIRD AVENUE
CARNEGIE, PA 15106

SCCC, INC. AND TIERRA SOLUTIONS INC.

DRWN: SCC	DATE: 08/24/09	KEY ENVIRONMENTAL INCORPORATED
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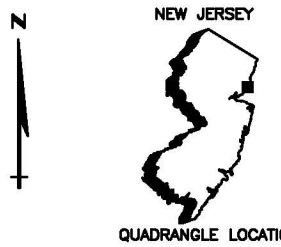
APPD: PWS	DATE: 08/24/09	
SCALE: AS SHOWN		

DISCHARGE TO SURFACE WATER PERMIT APPLICATION
CATEGORY BGR – GENERAL REMEDIATION
DISCHARGE PERMIT AUTHORIZATION
SCCC INC. AND DIAMOND SITES
KEARNY, NEW JERSEY

LINE DRAWING
TEMPORARY CONSTRUCTION
TREATMENT SYSTEM

PROJECT NO: 09–803/804

FIGURE 3



REFERENCE: USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLES OF JERSEY CITY, AND WEEHAWKEN, NEW JERSEY

ISSUE DATE:

KEY ENVIRONMENTAL, INC.
200 THIRD AVENUE
CARNEGIE, PA 15106

SCCC, INC. AND TIERRA SOLUTIONS INC.

DRWN: GLC	DATE: 08/24/09
CHKD: RJH	DATE: 08/24/09
APPD: JSZ	DATE: 08/24/09
SCALE:	1"= 2000'

KEY ENVIRONMENTAL INCORPORATED

DISCHARGE TO SURFACE WATER PERMIT APPLICATION
CATEGORY BGR – GENERAL REMEDIATION
DISCHARGE PERMIT AUTHORIZATION
SCCC INC. AND DIAMOND SITES
KEARNY, NEW JERSEY

USGS MAP

PROJECT NO: 09-803/804

FIGURE 4

y:\00civil\kearny\ira design\production drawings\discharge to surface water permit application\figure 4 – usgs map.dwg Last Saved By: Scanner 9/30/2009 5:44 PM Plotted By: Shelly Corner 9/30/2009 5:46 PM Scale: 1:1

Form R Supplemental Application to
NJPDES-1 for NJPDES/ Residual Permit

Form R - attachment B

Form R– Items B11/B14
Off-Site Treatment/Recycling/Disposal
and Incineration Facilities

FORM R, ATTACHMENT B

ITEMS B11/B14 - OFF-SITE TREATMENT/RECYCLING/DISPOSAL AND INCINERATION FACILITIES
NJPDES/BGR PERMIT APPLICATION
SCCC, INC. AND DIAMOND SITES
KEARNY, NEW JERSEY

Residual Type[+]	(a) Name of Receiving Facility[++]	(b) Facility Contact	(c) Facility Mailing Address	(d) Total dry metric tons per 365-day period	
				Hydraulic Control Treatment System (HCTS)	Temporary Construction Treatment System (TCTS)
Spent GAC	Calgon Carbon Corp. Big Sandy Plant	Joseph Conte Process Engineer (606) 739-8681	15024 US Route 23 Catlettsburgh, KY 41129	84	99.3
Sludge Cake and/or Spent Filters***	CWM Chemical Services, LLC	Pat Stauffer Techical Services Representative (716) 754-0451	1550 Balmer Road Model City, NY 14107	26*	85.1**
DNAPL from Recovery Wells	Clean Harbors Deer Park Facility	Mike Khatri Facility Maketing Mgr. (281) 930-2341	2027 Batteground Rd. Deer Park, TX 77536	100 gal/month	N/A
	Clean Habors El Dorado LLC	Theresa Evans Plant Manager (870) 863-7173	309 American Circle El Dorado, AR 71780		

Notes:

* Metals Precipitation Sludge

** Approximately 84.7 Dry Metric Tons of Metals Precipitation Sludge and 0.4 Dry Metric Tons of Pressure Filtration Solids

*** Spent bag filters included with sludge cake tonnage.

[+] All residuals and streams are estimates only. Actual quantities will depend on the actual operation of the system, the conditions observed in the field at the time of pumping, and the pumping scenarios used to meet the individual treatment system pumping objectives.

[++] Destination of residual streams may change based upon approved profiling of the materials after additional characterization, actual quantities, and the contracts in-place at the time of operation.

(d) Assume six days per week operation.